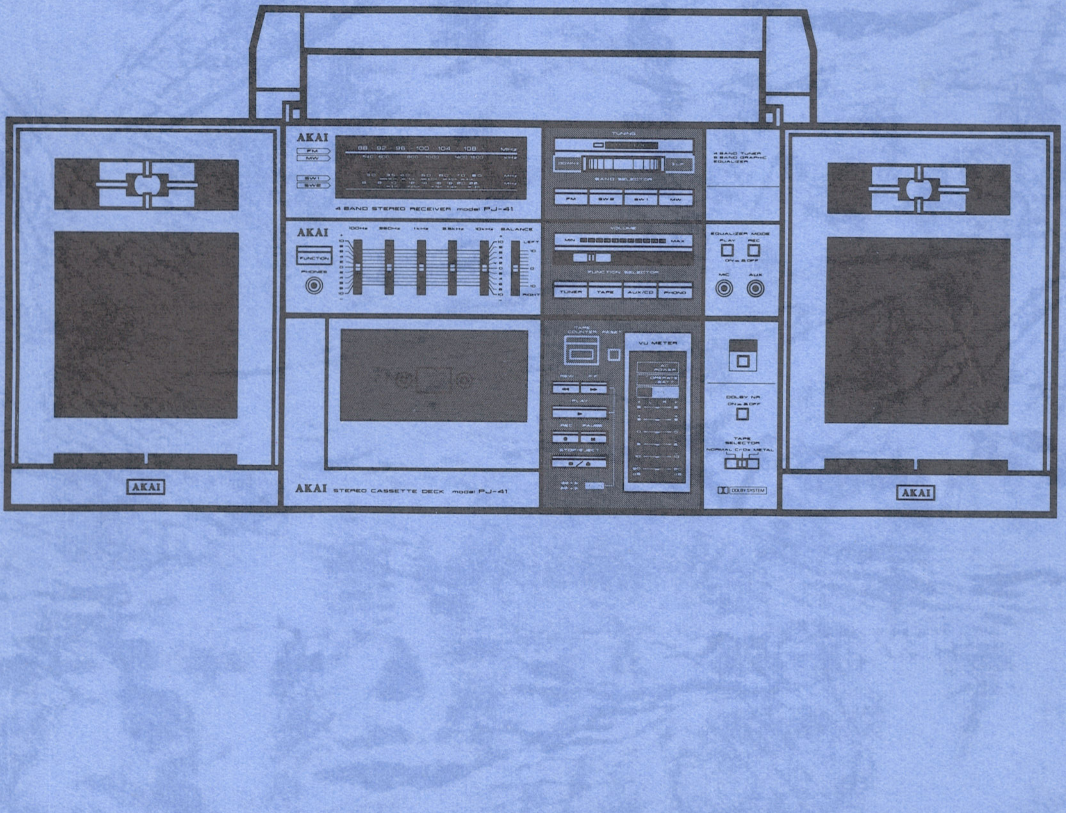
AKAI SERVICE MANUAL


AKAI
4 BAND STEREO RECEIVER model PJ-41
AKAI
AKAI STEREO CASSETTE DECK model PJ-41
AKAI
AKAI

4 BAND STEREO RECEIVER
STEREO CASSETTE DECK

MODEL PJ-41FS/FU/FL

ABBREVIATIONS FOR SERVICE MANUAL
MODEL PJ-41FS/FU/FL

ABBREVIATION	EXPLANATION
AC	Alternating Current
ADJ	ADJustment
AM	Amplitude Modulation
ANT	ANTenna
DC	Direct Current
EXT	EXTernal
F-range	Frequency range
FREQ	FREQuency
FM	Frequency Modulation
GND	GrouND
IF	Intermediate Frequency
IPLS	Instant Program Location System
MPX	Multi PleX
MW	Medium Wave
OSC	OSCillator
PB	Play Back
REC	RECord
SENS	SENSitivity
SW	SWitch
SW	Short Wave
SSG	Standard Signal Generator
T.H.D.	Total Harmonic Distortion

4 BAND STEREO RECEIVER
STEREO CASSETTE DECK

MODEL PJ-41FS/FU/FL

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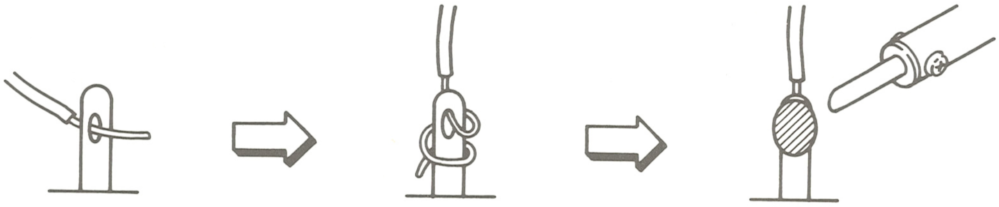
SAFETY INSTRUCTIONS

SAFETY CHECK AFTER SERVICING

Confirm the specified insulation resistance between power cord plug prongs and externally exposed parts of the set is greater than 10 Mohms, but for equipment with external antenna terminals (tuner, receiver, etc.) and is intended for [C] or [A], specified insulation resistance should be more than 2.2 Mohms (ground terminals, microphone jacks, headphone jacks. line-in-out jacks etc.)

PRECAUTIONS DURING SERVICING

1. Parts identified by the ⚠ symbol parts are critical for safety.
   Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with specified replacements.
   Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers (Insulating Barriers)
   4) Insulation sheets for transistors
   5) Plastic screws for fixing microswitch (especially in turntable)
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.

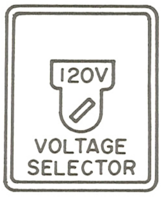


6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

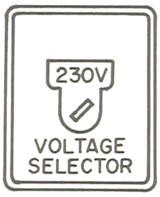
VOLTAGE CONVERSION

Models for some countries are not equipped with this facility. Each machine is preset at the factory according to destination, but some machines can be set to 110V–120V or 220V–240V as required. If you machine's voltage can be converted:

Before connecting power cord, turn the voltage selector, located on the back panel, with a screwdriver until the correct voltage is indicated.



(110 to 120)



(220 to 240)

CYCLE CONVERSION

Cycle conversion is not necessary since PJ-41 use a DC motor.

SECTION 1

SERVICE MANUAL

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For basic adjustments, measuring methods, and operating principles, refer GENERAL TECHNICAL MANUAL.

I. SPECIFICATIONS

TYPE	Stereo Portable Component

AMP/TUNER SECTION (PJ-41FS/FU)

FREQUENCY RANGE	FM: 88 to 108 MHz MW: 531 to 1602 kHz SW_1: 3.0 to 8.0 MHz SW_2: 8.0 to 22.0 MHz
USABLE SENSITIVITY	FM: 20 dBf (IHF) MW: 400μV SW_1: 30μV SW_2: 30μV
S/N	FM: 60 dB MW: 40 dB SW_1: 40 dB SW_2: 40 dB
STEREO SEPARATION	40 dB
ANTENNAS	MW: Loop antenna FM/SW_1/SW_2: Telescopic antenna
POWER OUTPUT	Peak music power output: Total 100W (for PJ-41FS) Maximum power output: Total 40W (for PJ-41FU) Rated power output: 15W x 2 (at T.H.D. 10% DC/for PJ-41FS) FTC: 14W x 2 (at T.H.D. 10% F-range 40 Hz to 17 kHz, 4 ohms/for PJ-41FU)
INPUT TERMINAL	AUX: 200 mV/47 kohms (PIN Jack x 2/3.5 mm stereo mini plug) PHONO: 3 mV/47 kohms (PIN jack x 2) MIC: 2.5 mV/10 kohms (3.5 mm mini jack)
OUTPUT TERMINAL	LINE OUT: 200 mV/20 kohms (PIN jack x 2) PHONES: 4 to 32 ohms (3.5 mm stereo mini jack) SPEAKERS: 4 to 8 ohms
DIMENSIONS	284(W) x 109(H) x 214(D) mm (11.2 x 4.3 x 8.4 inches)
WEIGHT	2.1 kg (4.6 lbs)

AMP/TUNER SECTION (PJ-41FL)

FREQUENCY RANGE	FM: 87.6 to 108 MHz MW: 531 to 1602 kHz LW: 150 to 290 kHz SW: 5.9 to 16 MHz
USABLE SENSITIVITY	FM: 20 dBf (IHF) MW: 400μV LW: 800μV SW: 30μV
S/N	FM: 60 dB MW: 40 dB LW: 34 dB SW: 40 dB
STEREO SEPARATION	40 dB
ANTENNAS	MW/LW: Loop antenna FM/SW: Telescopic antenna
POWER OUTPUT	Maximum power output: Total 40W Rated power output: 15W x 2 (at T.H.D. 10% DC/for PJ-41FS)

INPUT TERMINAL	AUX: 200 mV/47 kohms (PIN Jack x 2/3.5 mm stereo mini plug) PHONO: 3 mV/47 kohms (PIN jack x 2) MIC: 2.5 mV/10 kohms (3.5 mm mini jack)
OUTPUT TERMINAL	LINE OUT: 200 mV/20 kohms (PIN jack x 2) PHONES: 4 to 32 ohms (3.5 mm stereo mini jack) SPEAKERS: 4 to 8 ohms
DIMENSIONS	284(W) x 109(H) x 214(D) mm (11.2 x 4.3 x 8.42 inches)
WEIGHT	2.1 kg (4.6 lbs)

DECK SECTION (PJ-41FS/FU/FL)

TRACK SYSTEM	4 track 2 channel stereo
TAPE SPEED	4.76 cm/sec
WOW & FLUTTER	0.06% WRMS (JIS)
FF & REW TIME	125 sec (C-60)
FREQUENCY RESPONSE	METAL: 40 Hz to 17,000 Hz CrO_2: 40 Hz to 15,000 Hz NORMAL: 40 Hz to 14,000 Hz
S/N	55 dB Dolby NR ON: Improves up to 10 dB above 5 kHz
DIMENSIONS	284(W) x 109(H) x 214(D) mm (11.2 x 4.3 x 8.4 inches)
WEIGHT	3.2 kg (7.0 lbs)

SPEAKER SECTION

SPEAKER SYSTEM	2 way bass reflex
SPEAKER UNIT	Woofer: 100 mm x 2 Tweeter: 30 mm x 2
IMPEDANCE	4 ohms
MAXIMUM INPUT POWER	20 watts
DIMENSIONS	153(W) x 218(H) x 200(D) mm (6.0 x 8.6 x 7.9 inches)
WEIGHT	1.7 kg/unit (3.7 lbs)

GENERAL

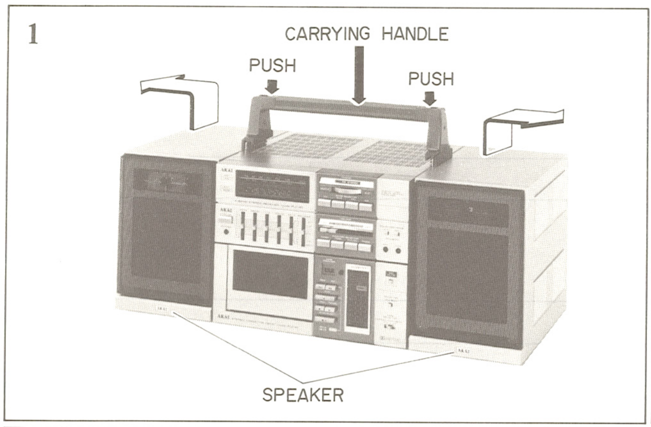
POWER REQUIREMENTS	DC power source 12V (SUM-1, D, R20 or equivalent sized batteries x 8) AC power source 120V, 60 Hz for USA and Canada 220V, 50 Hz for Europe except UK 240V, 50 Hz for UK and Australia 110V to 120V/220V to 240V or 120V/230V, 50/60 Hz switchable for other countries.
DIMENSIONS	597(W) x 218(H) x 214(D) mm (23.5 x 8.6 x 8.4 inches)
WEIGHT	9.45 kg (20.8 lbs)

II. DISMANTLING OF UNIT

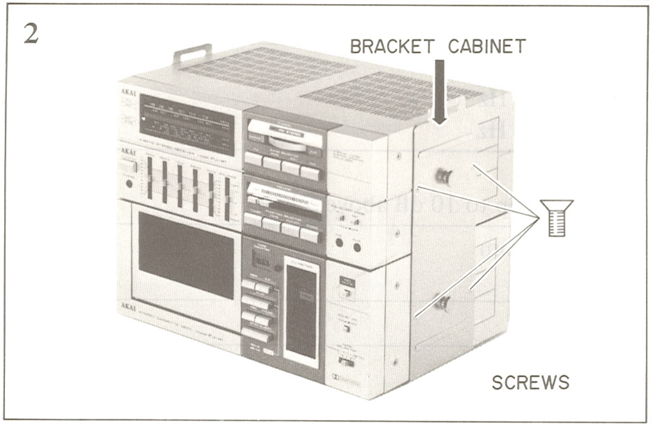
In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the photographs. Reassemble in reverse order.

2-1. DETACHING OF COMPONENT

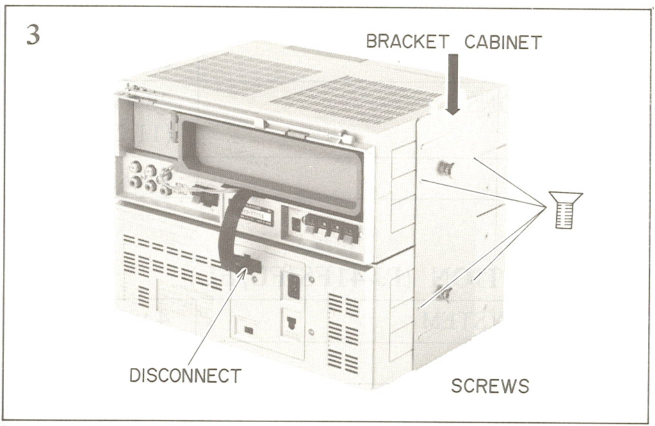
1


CARRYING HANDLE
PUSH
PUSH
SPEAKER

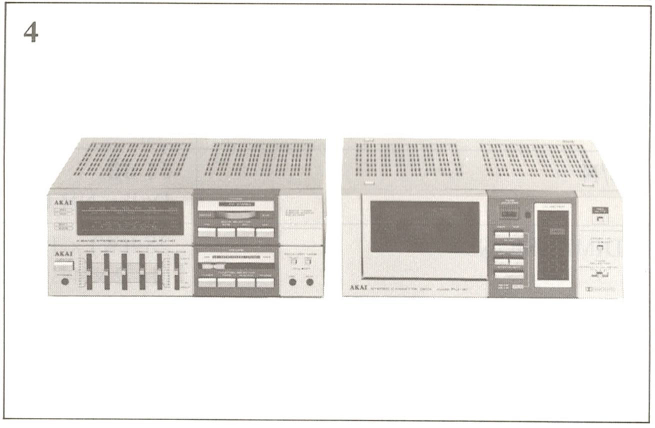
2


BRACKET CABINET
SCREWS

3

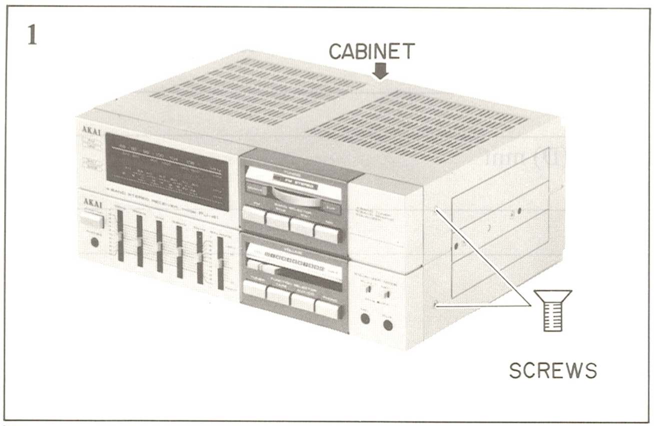

BRACKET CABINET
DISCONNECT
SCREWS

4

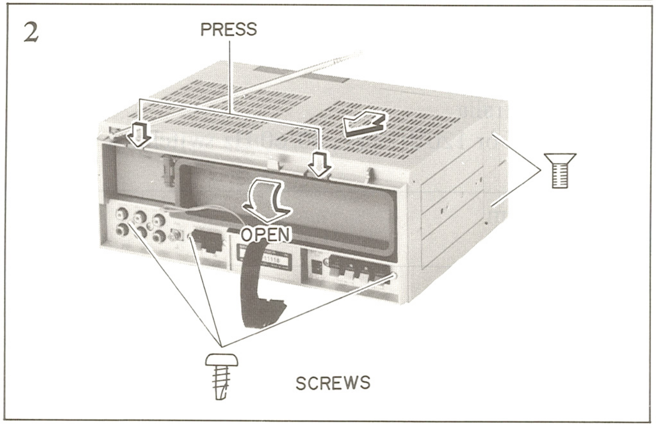


2-2. DISMANTLING OF AMP/TUNER SECTION

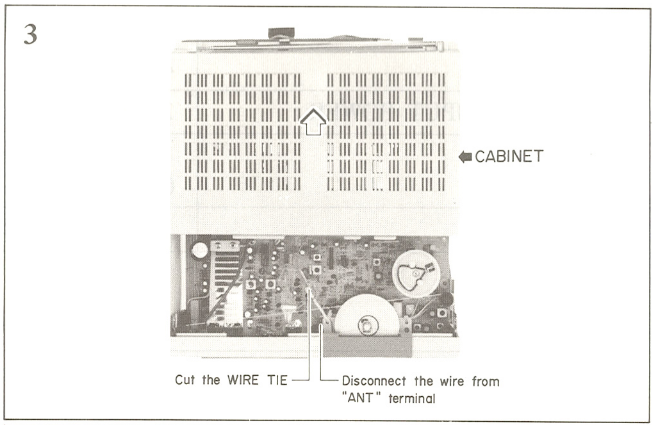
1


CABINET
SCREWS

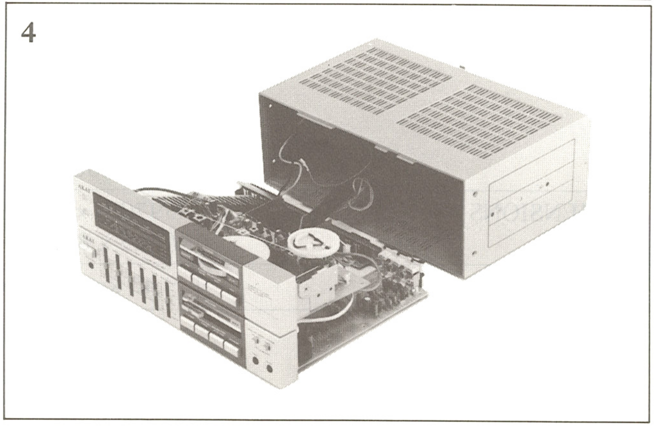
2


PRESS
OPEN
SCREWS

3

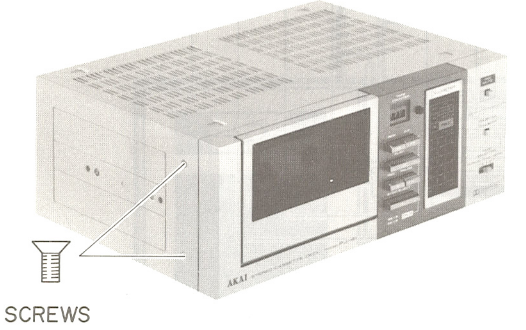

CABINET
Cut the WIRE TIE
Disconnect the wire from "ANT" terminal

4

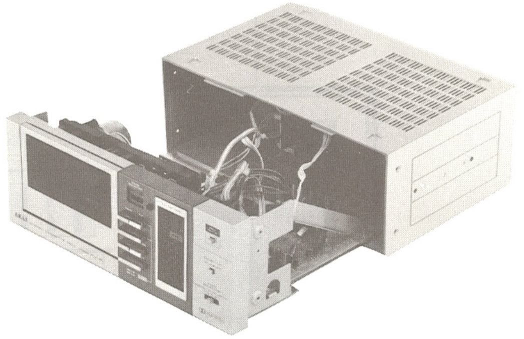


2-3. DISMANTLING OF CASSETTE DECK SECTION

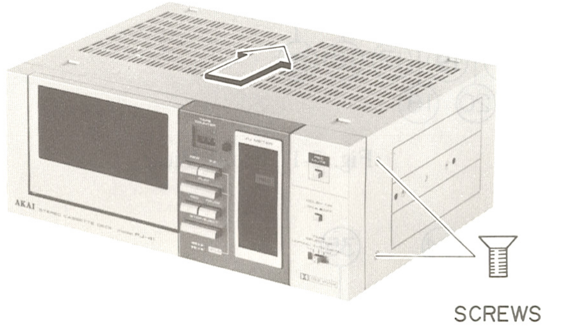
1


AKAI
SCREWS

3

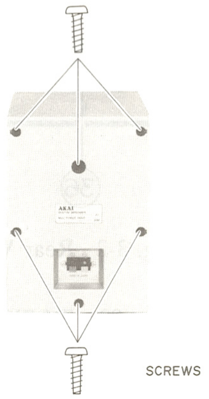


2

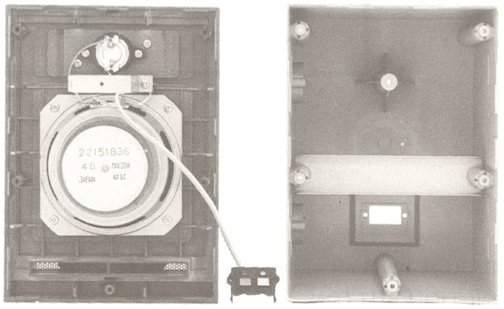

AKAI
SCREWS

2-4. DISMANTLING OF SPEAKER SECTION

1


AKAI
SCREWS

2



III. CONTROLS

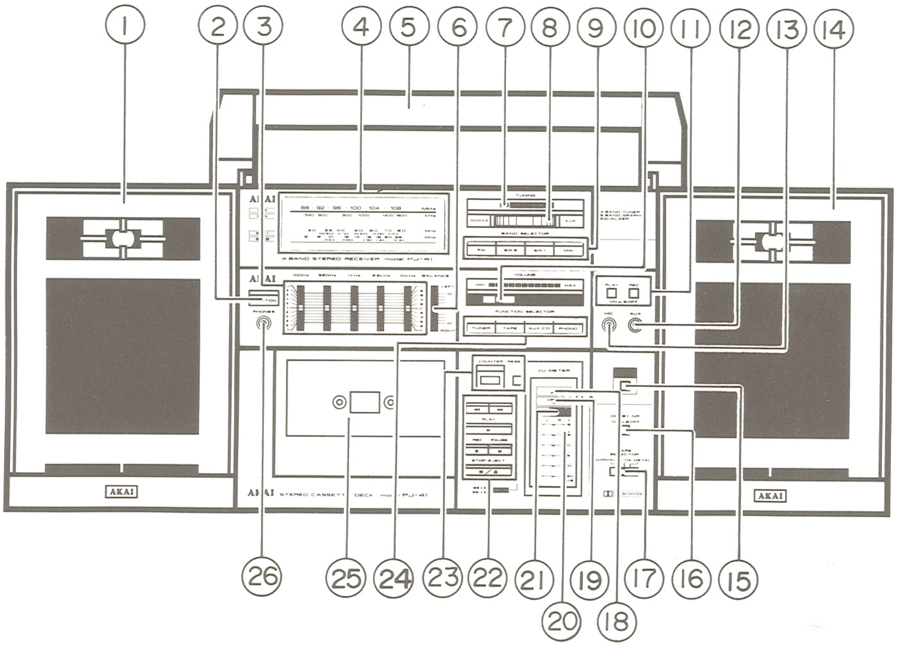

1
2
3
4
5
6
7
8
9
10
11
12
13
14
AKAI
4 BAND STEREO RECEIVER
BAND SELECTOR
FUNCTION SELECTOR
TUNER
TAPE
AUX/CD
PHONO
VU METER
AKAI STEREO CASSETTE DECK model PJ-41
AKAI
AKAI
26
25
24
23
22
21
19
17
16
15
20
18

Fig. 3-1 Front View

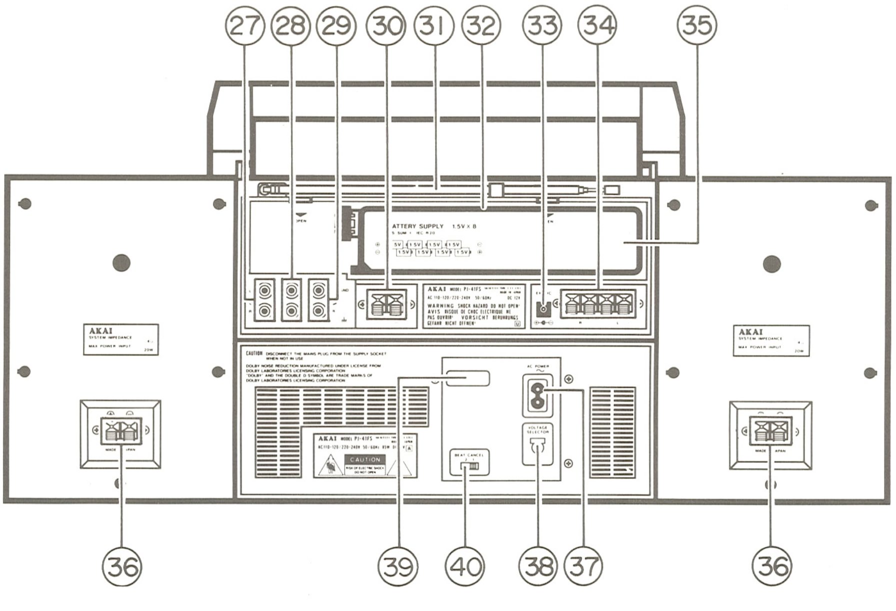

27
28
29
30
31
32
33
34
35
AKAI
AKAI
CAUTION
36
39
40
38
37
36

Fig. 3-2 Rear View

1. SPEAKER (for Left channel)
2. FUNCTION BUTTON
3. GRAPHIC EQUALIZER CONTROLS
4. TUNING DIAL SCALE & INDICATOR
5. CARRING HANDLE (detachable)
6. BALANCE CONTROL
7. FM STEREO INDICATOR
8. TUNNING CONTROL
9. BAND SELECTOR BUTTONS
10. VOLUME CONTROL
11. EQUALIZER MODE (PLAY/REC) BUTTONS
12. AUX JACK
13. MIC JACK
14. SPEAKER (for Right channel)
15. REC MUTE BUTTON
16. DOLBY NR SWITCH
17. TAPE SELECTOR SWITCH
18. AC POWER INDICATOR
19. OPERATE/BATT. INDICATOR
20. VU METER
21. REC INDICATOR
22. OPERATION BUTTONS
23. TAPE COUNTER & RESET BUTTON
24. FUNCTION SELECTOR BUTTON
25. CASSETTE LID/HOLDER
26. PHONES JACK
27. PHONO JACKS
28. AUX/CD JACKS
29. LINE OUT JACKS
30. FM EXTERNAL ANTENNA TERMINAL (75 ohms)
31. ROD ANTENNA
32. AM LOOP ANTENNA
33. EXTERNAL DC 12V JACK
34. SPEAKER TERMINAL (4 to 8 ohms)
35. BATTERY COVER
36. SPEAKER TERMINAL (+, –)
37. AC INLET
38. VOLTAGE SELECTOR SWITCH (PJ-41FS $\boxed{U}$, PJ-41FU only)
39. AMP/TUNER CONNECTION PLUG and SOCKET
40. BEAT CANCEL SWITCH

IV. PRINCIPAL PARTS LOCATION

4-1. TUNER SECTION

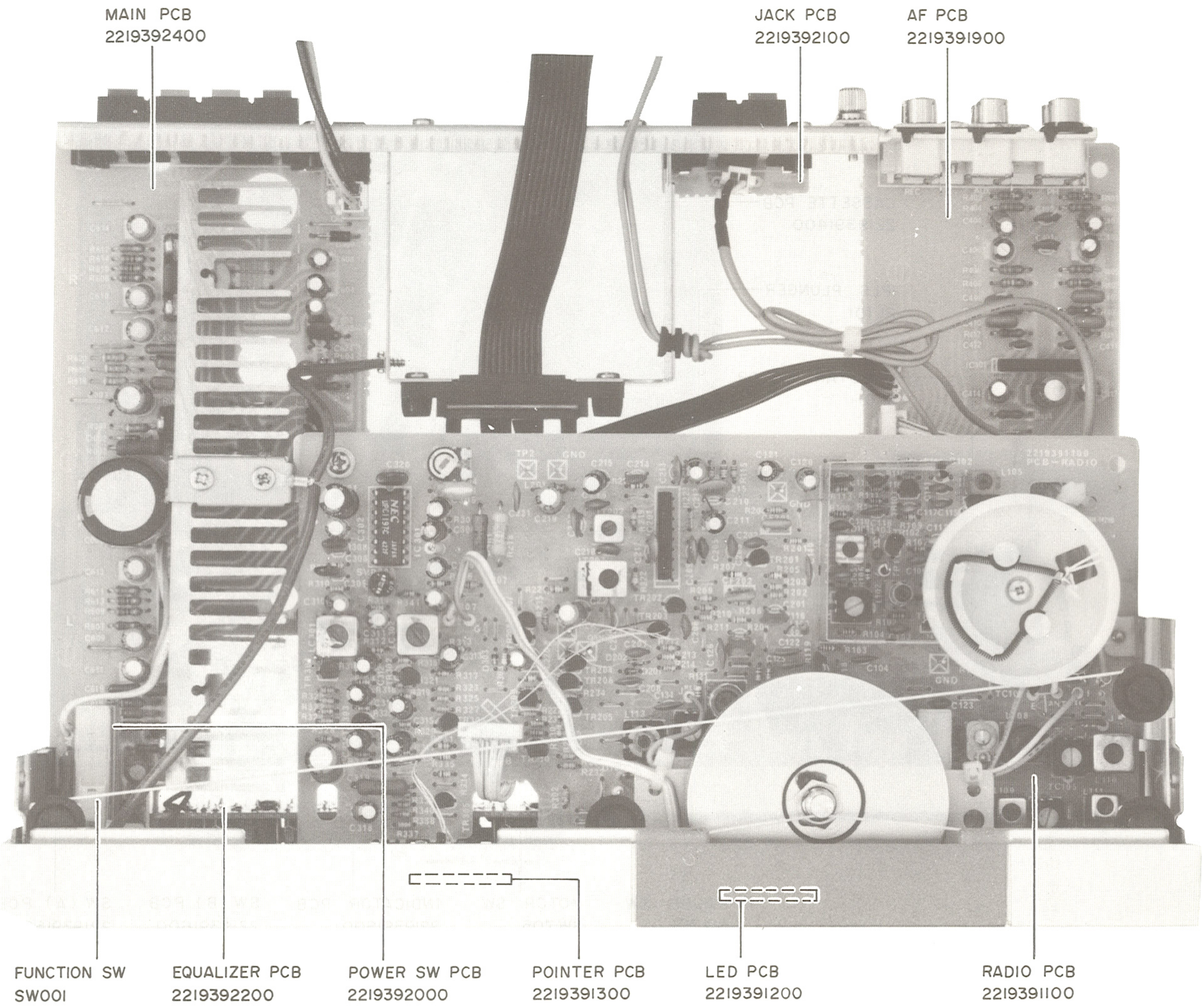

MAIN PCB
2219392400
JACK PCB
2219392100
AF PCB
2219391900
FUNCTION SW
SW001
EQUALIZER PCB
2219392200
POWER SW PCB
2219392000
POINTER PCB
2219391300
LED PCB
2219391200
RADIO PCB
2219391100

Fig. 4-1 Top View

4-2. CASSETTE DECK SECTION

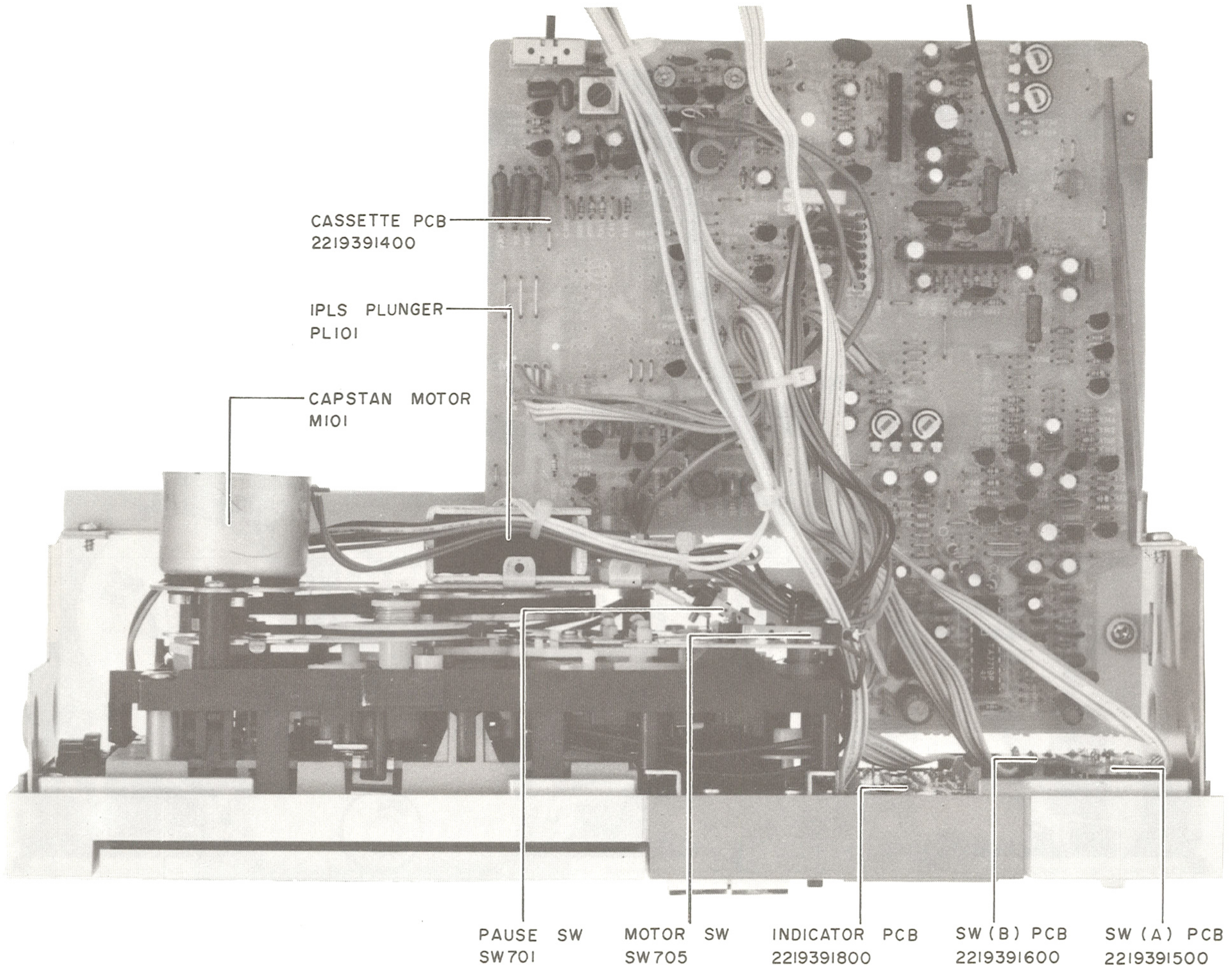

CASSETTE PCB
2219391400
IPLS PLUNGER
PL101
CAPSTAN MOTOR
M101
PAUSE SW
SW701
MOTOR SW
SW705
INDICATOR PCB
2219391800
SW (B) PCB
2219391600
SW (A) PCB
2219391500

Fig. 4-2 Top View

4-3. MECHA BLOCK

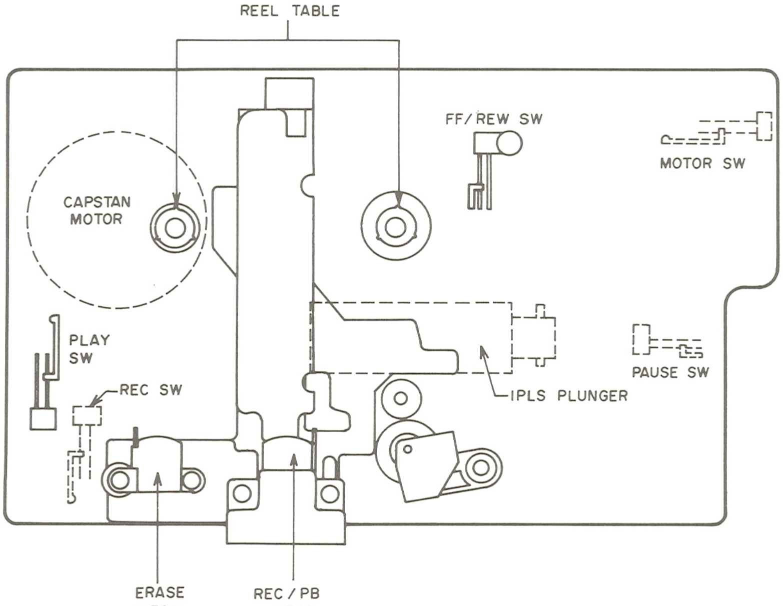

REEL TABLE
FF/REW SW
MOTOR SW
CAPSTAN MOTOR
PLAY SW
REC SW
IPLS PLUNGER
PAUSE SW
ERASE HEAD
REC / PB HEAD

Fig. 4-3 Front View

V. TUNER SECTION ADJUSTMENT

5-1. INSTRUMENT CONNECTIONS FOR TUNER ADJUSTMENT

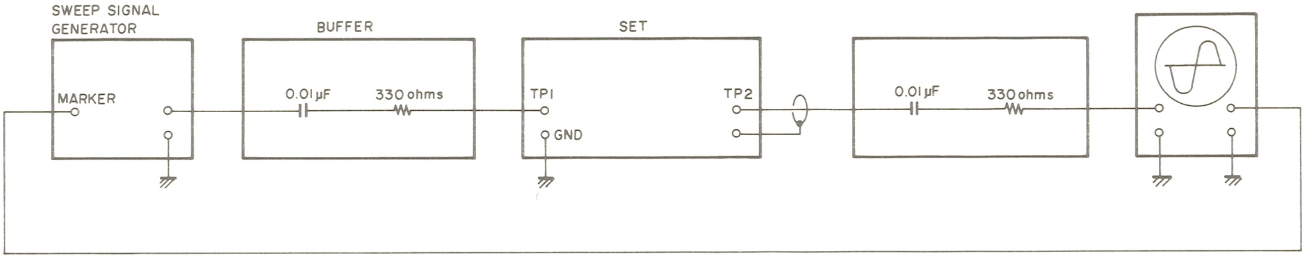

SWEEP SIGNAL GENERATOR
MARKER
BUFFER
0.01µF
330 ohms
SET
TP1
GND
TP2
0.01µF
330 ohms

Fig. 5-1 FM IF Adjustment

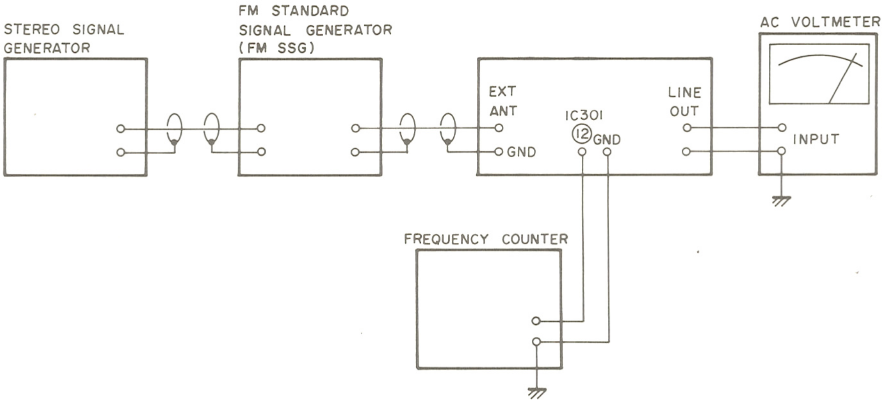

STEREO SIGNAL GENERATOR
FM STANDARD SIGNAL GENERATOR (FM SSG)
EXT ANT
GND
IC301
⑫
GND
LINE OUT
AC VOLTMETER
INPUT
FREQUENCY COUNTER

Fig. 5-2 FM Adjustment and Stereo Adjustment

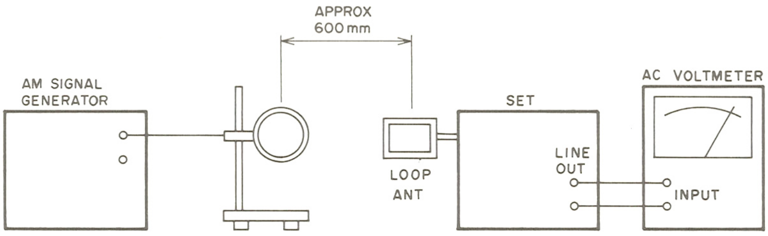

APPROX 600 mm
AM SIGNAL GENERATOR
LOOP ANT
SET
LINE OUT
AC VOLTMETER
INPUT

Fig. 5-3 MW/LW Adjustment

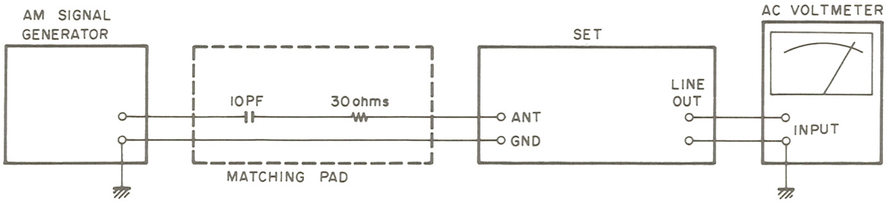

AM SIGNAL GENERATOR
10PF
30 ohms
MATCHING PAD
SET
ANT
GND
LINE OUT
AC VOLTMETER
INPUT

Fig. 5-4 SW Adjustment

5-2. PJ-41FS/FU RADIO PC BOARD ADJUSTMENT POINTS

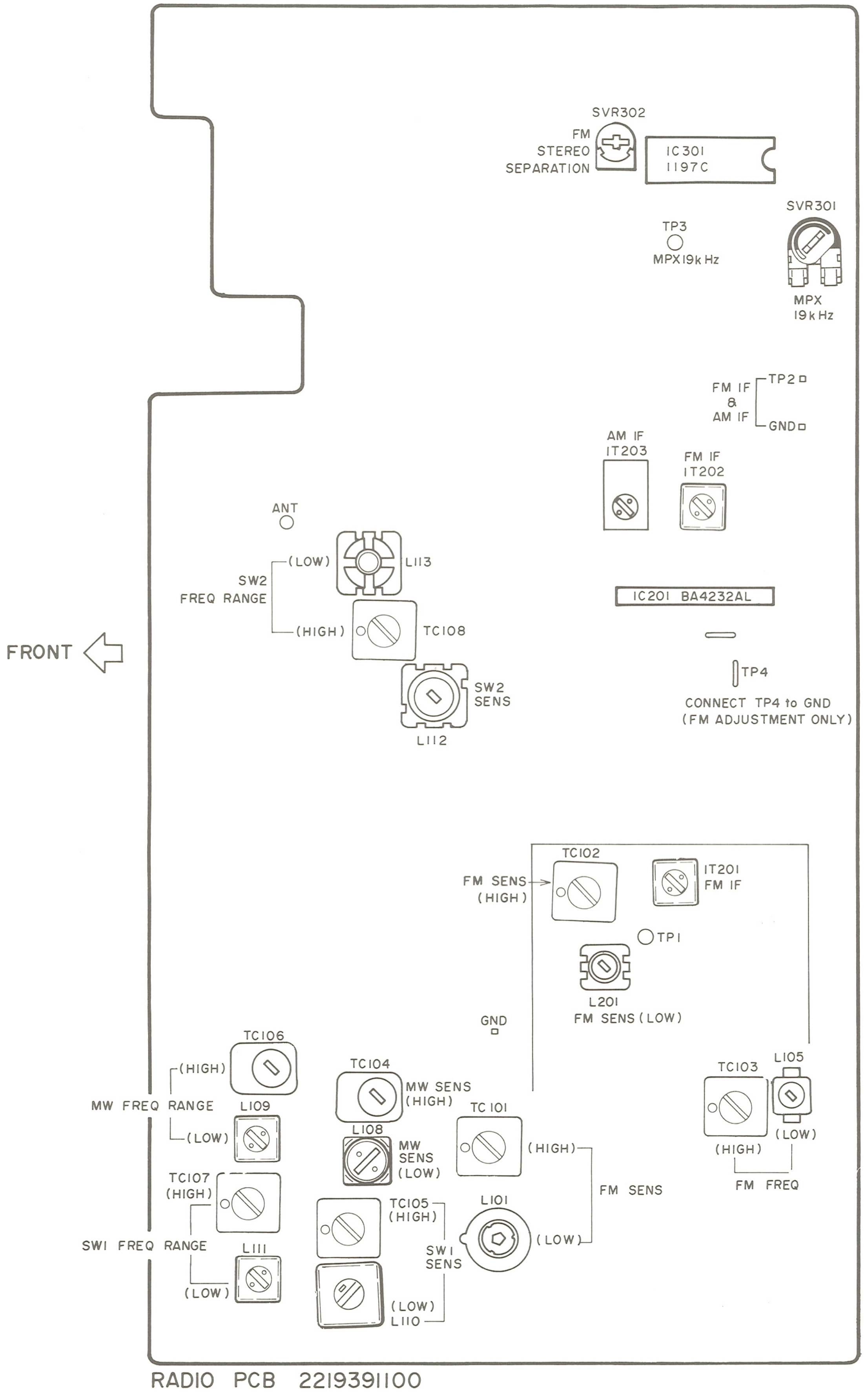
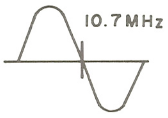

SVR302
FM STEREO SEPARATION
IC301 1197C
SVR301
TP3
MPX 19k Hz
MPX 19k Hz
FM IF & AM IF
TP2
GND
AM IF IT203
FM IF IT202
ANT
SW2 FREQ RANGE
(LOW)
(HIGH)
L113
TC108
FRONT
IC201 BA4232AL
TP4
CONNECT TP4 to GND (FM ADJUSTMENT ONLY)
SW2 SENS
L112
TC102
FM SENS (HIGH)
IT201 FM IF
TP1
L201 FM SENS (LOW)
GND
TC106
(HIGH)
MW FREQ RANGE
L109
(LOW)
TC104
MW SENS (HIGH)
TC101
L108
MW SENS (LOW)
(HIGH)
FM SENS
(LOW)
TC103
L105
(LOW)
(HIGH)
FM FREQ
TC107 (HIGH)
SW1 FREQ RANGE
L111
(LOW)
TC105 (HIGH)
L101
SW1 SENS
(LOW) L110
RADIO PCB 2219391100

Fig. 5-5 TUNER SECTION Adjustment Points

5-3. FM SECTION ADJUSTMENT (PJ-41FS/FU)

CAUTION: Connect the IC201 (BA4232AL) Pin ⑬ to Ground.

Step	Adjustment Item	Test Point	Adjustment Point	Result	Remarks
1	FM IF	TP2 and GND	IT201 IT202	 Maximum S curve waveform (upper/lower waveform symmetricity)	● Set BAND SELECTOR SW to FM. ● 10.7 MHz from Sweep Signal Generator. ● Set the Tuning indicator to Left end. (Low end)
2	Frequency Range (LOW)	LINE OUT	L105	Maximum output	● 87.3 MHz from SSG. ● Set the Tuning indicator to Left end. (Low end)
3	Frequency Range (HIGH)	LINE OUT	TC103	Maximum output	● 109.5 MHz from SSG. ● Set the Tuning indicator to Right end. (High end)
4	For best Result, Repeat steps 2 and 3 two or three times.				
5	Sensitivity (LOW)	LINE OUT	L101 L102	Maximum output	● 90.0 MHz from SSG. ● Tune to signal.
6	Sensitivity (HIGH)	LINE OUT	TC101 TC102	Maximum output	● 106.0 MHz from SSG. ● Tune to signal.
7	For best Result, Repeat steps 5 and 6 two or three times.				
8	MPX 19 kHz	IC301 ⑫ pin or TP3	SVR301	19 kHz	● 98.0 MHz, 60 dB, MONO input. ● Connect a frequency counter between IC301 ⑫ pin (or TP3) and GND.
9	Stereo separation	LINE OUT	SVR302	More than 40 dB	● 98 MHz, 60 dB, Stereo Lch (Rch) input. ● Tune to signal. ● Minimum output of Rch (Lch).

NOTES:
1. Set the internal modulation signal generator to 100% (75 kHz div.), 1 kHz of each.
2. Set EQUALIZER MODE switch to OFF position.
3. Refer to Fig. 5-5 for these adjustment points.

5-4. MW SECTION ADJUSTMENT (PJ-41FS/FU)

Step	Adjustment Item	Test Point	Adjustment Point	Result	Remarks
1	AM IF	TP2 and GND	IT203	Maximum output	● Set BAND SELECTOR SW to MW. ● 460 kHz from SSG. ● Set the Tuning indicator to Left end. (Low end)
2	Frequency Range (LOW)	LINE OUT	L104	Maximum output	● 510 kHz from SSG. ● Set the Tuning indicator to Left end. (Low end)
3	Frequency Range (HIGH)	LINE OUT	TC106	Maximum output	● 1650 kHz from SSG. ● Set the Tuning indicator to Right end. (High end)
4	For best Result, Repeat steps 2 and 3 two or three times.				
5	Sensitivity (LOW)	LINE OUT	L108	Maximum output	● 600 kHz from SSG. ● Tune to signal.
6	Sensitivity (HIGH)	LINE OUT	TC104	Maximum output	● 1400 kHz from SSG. ● Tune to signal.
7	For best Result, Repeat.				

NOTES:
1. Set the internal modulation signal generator to 30%, 400 Hz of each.
2. Set EQUALIZE MODE switch to OFF position.
3. Refer to Fig. 5-5 for these adjustment point.

5-5. SW SECTION ADJUSTMENT (PJ-41FS/FU)

Step	Adjustment Item	Test Point	Adjustment Point	Result	Remarks
1	SW1 Frequency Range (LOW)	LINE OUT	L111	Maximum output	● Set BAND SELECTOR SW to SW1. ● 2.8 MHz from SSG. ● Set the Tuning indicator to Left end. (Low end)
2	SW1 Frequency Range (HIGH)	LINE OUT	TC107	Maximum output	● 8.2 MHz from SSG. ● Set the Tuning indicator to Right end. (High end)
3	For best Result, Repeat steps 1 and 2 two or three times.				
4	SW2 Sensitivity (LOW)	LINE OUT	L110	Maximum output	● 3.5 MHz from SSG. ● Tune to signal.
5	SW2 Sensitivity (HIGH)	LINE OUT	TC105	Maximum output	● 7.5 MHz from SSG. ● Tune to signal.
6	For best Result, Repeat steps 4 and 5 two or three times.				
7	SW2 Frequency Range (LOW)	LINE OUT	L113	Maximum output	● Set BAND SELECTOR SW to SW2. ● 2.8 MHz from SSG. ● Set the Tuning indicator to Left end. (Low end)
8	SW2 Frequency Range (HIGH)	LINE OUT	TC108	Maximum output	● 23.0 MHz from SSG. ● Set the Tuning indicator to Right end. (High end)
9	For best Result, Repeat steps 7 and 8 two or three times.				
10	SW2 Sensitivity	LINE OUT	L112	Maximum output	● 10 MHz from SSG. ● Tune to signal.

NOTES: 1. Set the internal modulation signal generator to 30%, 400 Hz of each.
2. Set EQUALIZE MODE switch to OFF position.
3. Refer to Fig. 5-5 for these adjustment point.

5-6. PJ-41FL RADIO PC BOARD ADJUSTMENT POINTS

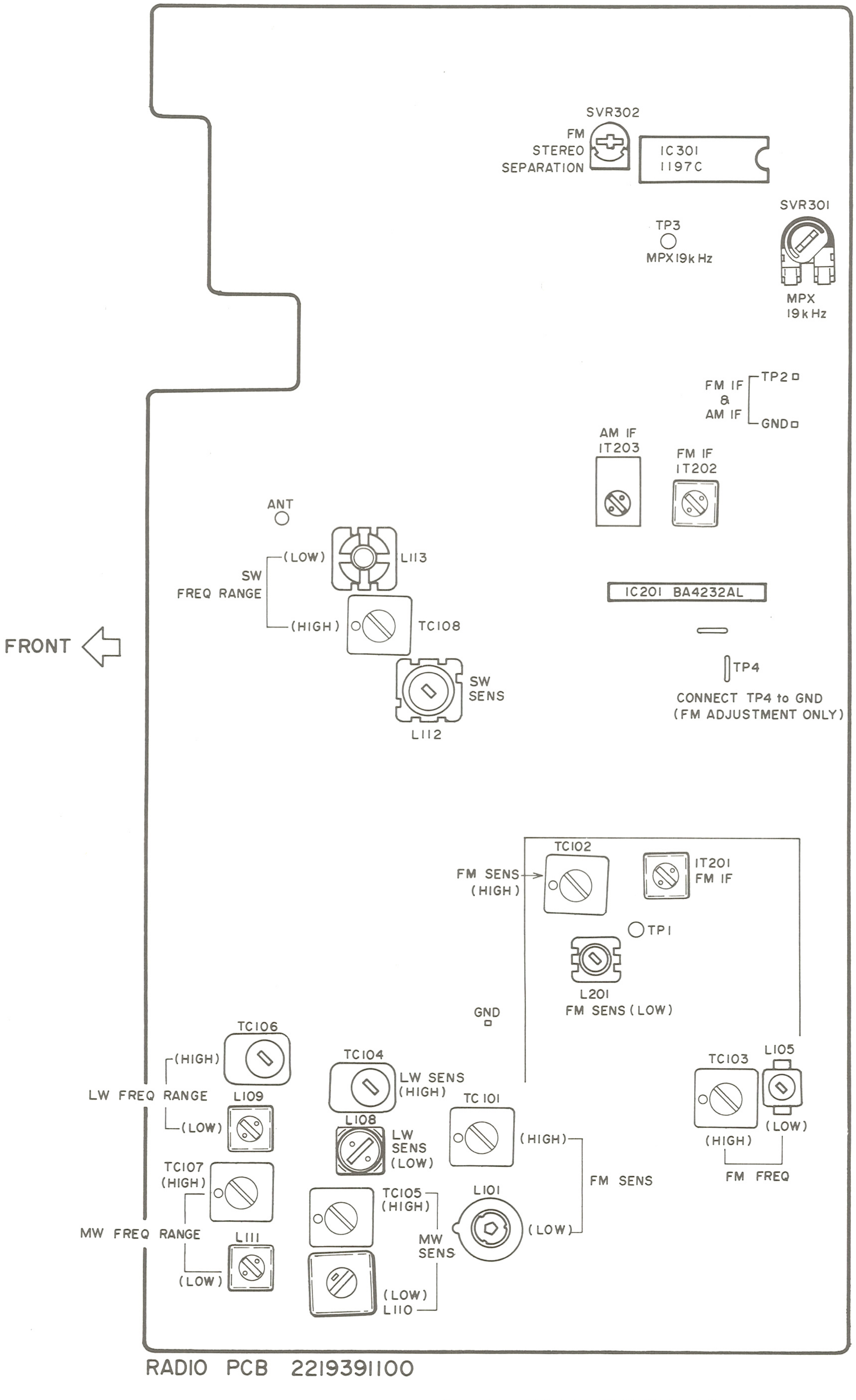
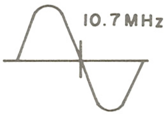

SVR302
FM STEREO SEPARATION
IC301 1197C
SVR301
TP3
MPX 19k Hz
MPX 19k Hz
FM IF & AM IF
TP2
GND
AM IF IT203
FM IF IT202
ANT
(LOW)
L113
SW FREQ RANGE
(HIGH)
TC108
IC201 BA4232AL
FRONT
SW SENS
L112
TP4
CONNECT TP4 to GND (FM ADJUSTMENT ONLY)
TC102
FM SENS (HIGH)
IT201 FM IF
TP1
L201 FM SENS (LOW)
GND
TC106
(HIGH)
LW FREQ RANGE
L109
(LOW)
TC104
LW SENS (HIGH)
TC101
L108
LW SENS (LOW)
(HIGH)
TC103
L105
(LOW)
(HIGH)
FM FREQ
FM SENS
TC107 (HIGH)
TC105 (HIGH)
L101
MW FREQ RANGE
L111
(LOW)
MW SENS
(LOW)
(LOW)
L110
RADIO PCB 2219391100

Fig. 5-6 TUNER SECTION Adjustment Points

5-7. FM SECTION ADJUSTMENT (PJ-41FL)

CAUTION: Connect the IC201 (BA4232AL) Pin ⑬ to Ground.

Step	Adjustment Item	Test Point	Adjustment Point	Result	Remarks
1	FM IF	TP2 and GND	IT201 IT202	 Maximum S curve waveform (upper/ lower waveform symmetricity)	● Set BAND SELECTOR SW to FM. ● 10.7 MHz from Sweep Signal Generator. ● Set the Tuning indicator to Left end. (Low end)
2	Frequency Range (LOW)	LINE OUT	L105	Maximum output	● 87.4 MHz from SSG. ● Set the Tuning indicator to Left end. (Low end)
3	Frequency Range (HIGH)	LINE OUT	TC103	Maximum output	● 108.25 MHz from SSG. ● Set the Tuning indicator to Right end. (High end)
4	For best Result, Repeat steps 2 and 3 two or three times.				
5	Sensitivity (LOW)	LINE OUT	L101 L102	Maximum output	● 90.0 MHz from SSG. ● Tune to signal.
6	Sensitivity (HIGH)	LINE OUT	TC101 TC102	Maximum output	● 106.0 MHz from SSG. ● Tune to signal.
7	For best Result, Repeat steps 5 and 6 two or three times.				
8	MPX 19 kHz	IC301 ⑫ pin or TP3	SVR301	19 kHz	● 98.0 MHz, 60 dB, MONO input. ● Connect a frequency counter between IC301 ⑫ pin (or TP3) and GND.
9	Stereo separation	LINE OUT	SVR302	More than 40 dB	● 98 MHz, 60 dB, Stereo Lch (Rch) input. ● Tune to signal. ● Minimum output of Rch (Lch).

NOTES:
1. Set the internal modulation signal generator to 100% (75 kHz div.), 1 kHz of each.
2. Set EQUALIZER MODE switch to OFF position.
3. Refer to Fig. 5-6 for these adjustment points.

5-8. MW SECTION ADJUSTMENT (PJ-41FL)

Step	Adjustment Item	Test Point	Adjustment Point	Result	Remarks
1	AM IF	TP2 and GND	IT203	Maximum output	● Set BAND SELECTOR SW to MW. ● 460 kHz from SSG. ● Set the Tuning indicator to Left end. (Low end)
2	Frequency Range (LOW)	LINE OUT	L111	Maximum output	● 510 kHz from SSG. ● Set the Tuning indicator to Left end. (Low end)
3	Frequency Range (HIGH)	LINE OUT	TC107	Maximum output	● 1650 kHz from SSG. ● Set the Tuning indicator to Right end. (High end)
4	For best Result, Repeat steps 2 and 3 two or three times.				
5	Sensitivity (LOW)	LINE OUT	L110	Maximum output	● 600 kHz from SSG. ● Tune to signal.
6	Sensitivity (HIGH)	LINE OUT	TC105	Maximum output	● 1400 kHz from SSG. ● Tune to signal.
7	For best Result, Repeat.				

NOTES:
1. Set the internal modulation signal generator to 30%, 400 Hz of each.
2. Set EQUALIZE MODE switch to OFF position.
3. Refer to Fig. 5-6 for these adjustment point.

5-9. LW SECTION ADJUSTMENT

Step	Adjustment Item	Test Point	Adjustment Point	Result	Remarks
1	LW Frequency Range (LOW)	LINE OUT	L109	Maximum output	● Set BAND SELECTOR SW to LW. ● 145 kHz from SSG. ● Set the Tuning indicator to Left end. (Low end)
2	LW Frequency Range (HIGH)	LINE OUT	TC106	Maximum output	● 300 kHz from SSG. ● Set the Tuning indicator to Right end. (High end)
3	For best Result, Repeat steps 1 and 2 two or three times.				
4	LW Sensitivity (LOW)	LINE OUT	L108	Maximum output	● 160 kHz from SSG. ● Tune to signal.
5	LW Sensitivity (HIGH)	LINE OUT	TC104	Maximum output	● 250 kHz from SSG. ● Tune to signal.
6	For best Result, Repeat steps 4 and 5 two or three times.				

NOTES:
1. Set the internal modulation signal generator to 30%, 400 Hz of each.
2. Set EQUALIZE MODE switch to OFF position.
3. Refer to Fig. 5-6 for these adjustment point.

5-10. SW SECTION ADJUSTMENT (PJ-41FL)

Step	Adjustment Item	Test Point	Adjustment Point	Result	Remarks
1	SW Frequency Range	LINE OUT	L113	Maximum output	● Set BAND SELECTOR SW to SW. ● 5.6 MHz from SSG. ● Set the Tuning indicator to Left end. (Low end)
2	SW Frequency Range	LINE OUT	TC108	Maximum output	● 16.5 MHz from SSG. ● Set the Tuning indicator to Right end. (High end)
3	For best Result, Repeat steps 1 and 2 two or three times.				
4	SW Sensitivity	LINE OUT	L112	Maximum output	● 6.5 MHz from SSG. ● Tune to signal.

NOTES:
1. Set the internal modulation signal generator to 30%, 400 Hz of each.
2. Set EQUALIZE MODE switch to OFF position.
3. Refer to Fig. 5-6 for these adjustment point.

VI. DIAL COAD RESTRINGING

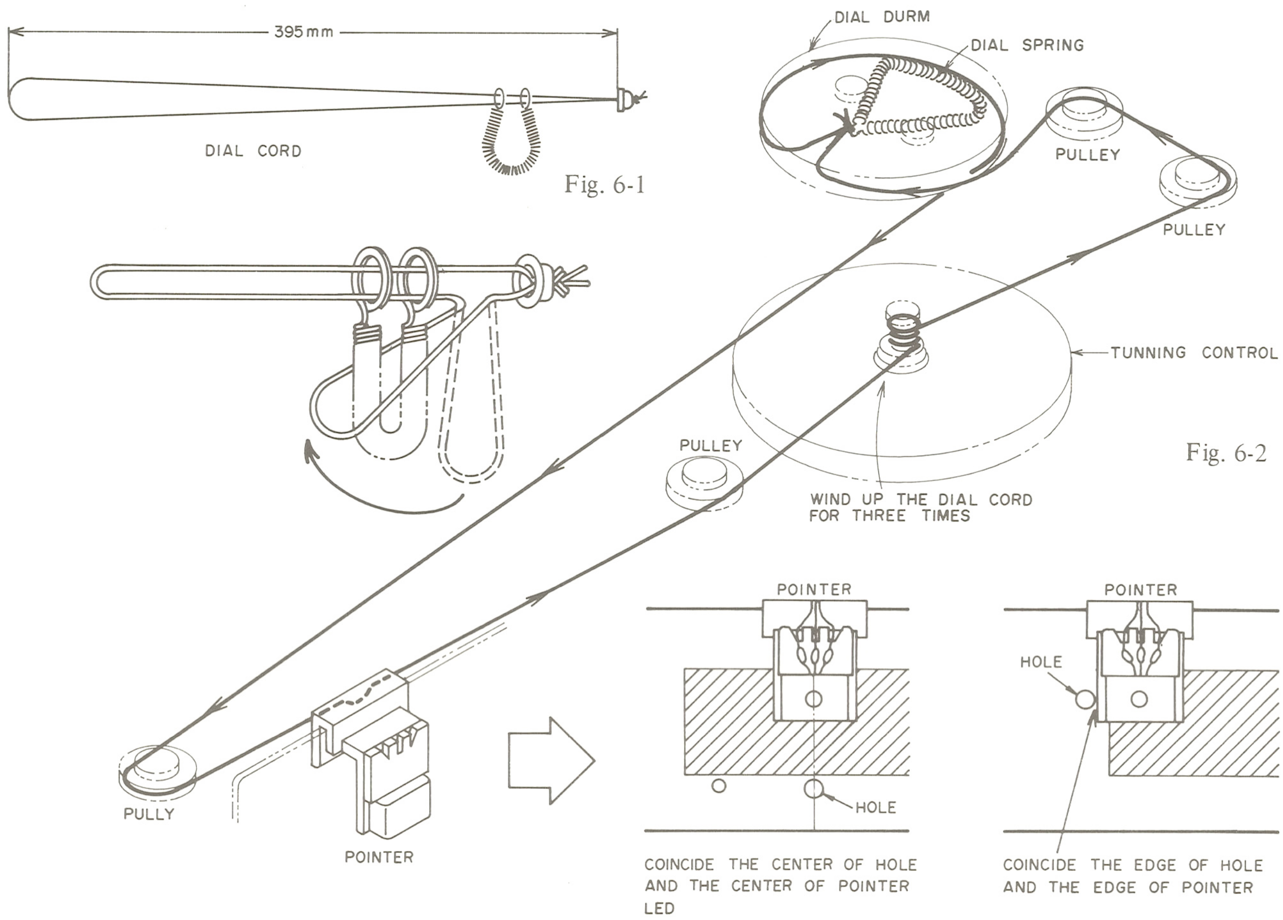

395 mm
DIAL CORD
DIAL DURM
DIAL SPRING
PULLEY
PULLEY
TUNNING CONTROL
PULLEY
WIND UP THE DIAL CORD FOR THREE TIMES
PULLY
POINTER
POINTER
HOLE
POINTER
HOLE

Fig. 6-1

Fig. 6-2

COINCIDE THE CENTER OF HOLE AND THE CENTER OF POINTER LED

Fig. 6-3

COINCIDE THE EDGE OF HOLE AND THE EDGE OF POINTER

Fig. 6-4

1. Build a Dial cord as shown Fig. 6-1.
2. Turn the Dial drum counter clockwise fully.
3. Set the Dial cord as shown Fig. 6-2.

0 POINT ADJUSTMENT

This model has been made 2 different kind of this adjustment. Turn the tuning control to low end, then set the pointer to low end point as shown Fig. 6-3 or Fig. 6-4.

VII. CASSETTE SECTION ADJUSTMENT

7-1. MECHANICAL ADJUSTMENT

a) TAPE SPEED ADJUSTMENT

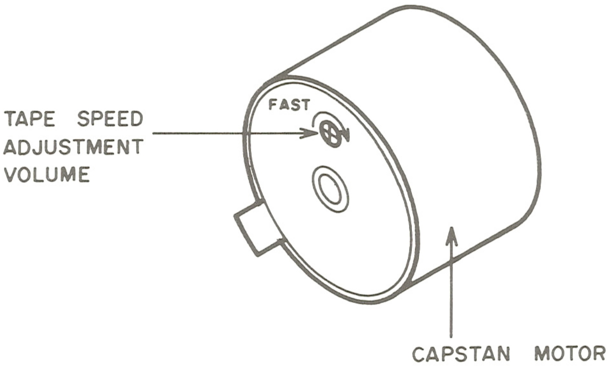

TAPE SPEED ADJUSTMENT VOLUME
FAST
CAPSTAN MOTOR

Fig. 7-1 Tape Speed Adjustment Point

Connect a frequency counter to Line Output terminal. Playback a 1,000 Hz pre-recorded Test Tape (AT-750774), or 3,150 Hz pre-recorded Test Tape (AT-751263), and adjust the Tape Speed Adjustment Variable Resistor (See Fig. 7-1) to obtain a tape speed of 1,000 Hz to 1,010 Hz or 3,150 Hz to 3,465 Hz.

b) REC/PB HEAD AZIMUTH ALIGNMENT

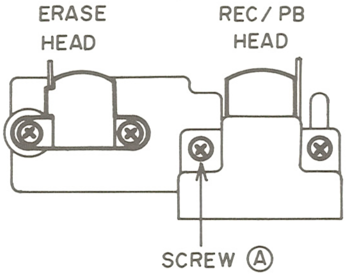

ERASE HEAD
REC / PB HEAD
SCREW Ⓐ

Fig. 7-2

Connect AC voltmeters between TP3 (Lch), TP4 (Rch) and GND. Playback a 10 kHz Azimuth Alignment tape (AT-750778) and adjust the SCREW Ⓐ until the output levels of both channels are maximum. After adjustment, paintlock the SCREW Ⓐ.

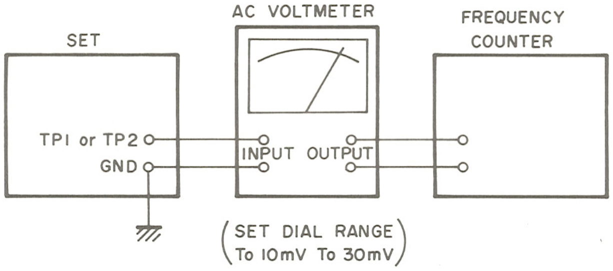

SET
AC VOLTMETER
FREQUENCY COUNTER
TP1 or TP2
GND
INPUT
OUTPUT
SET DIAL RANGE
To 10mV To 30mV

Fig. 7-3 Bias OSC. Frequency Adjustment

7-2. CASSETTE PC BOARD ADJUSTMENT POINTS

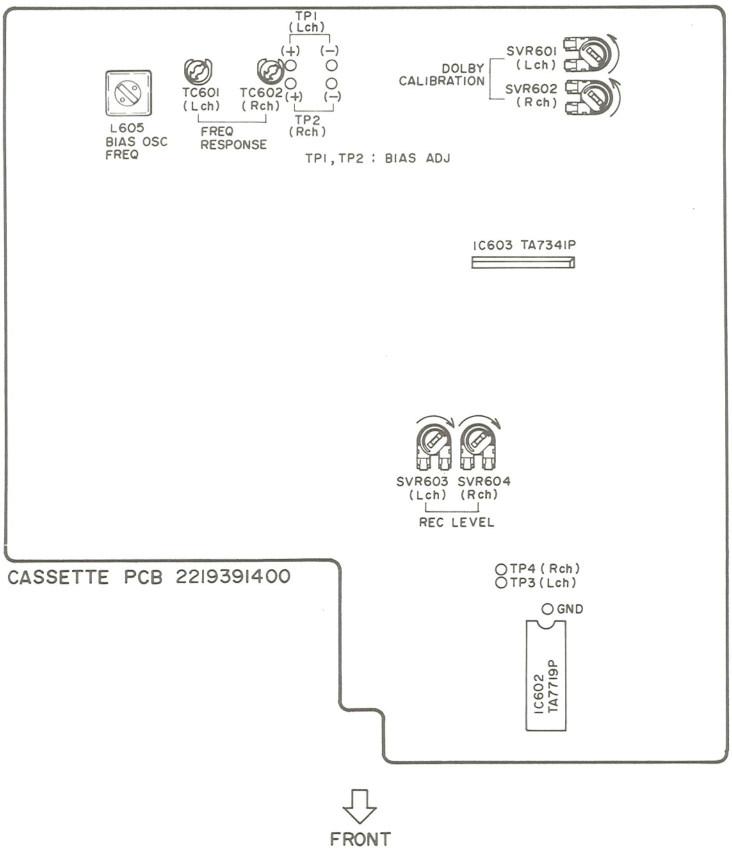

TP1 (Lch)
(+) (–)
(+) (–)
TP2 (Rch)
L605 BIAS OSC FREQ
TC601 (Lch)
TC602 (Rch)
FREQ RESPONSE
TP1, TP2 : BIAS ADJ
DOLBY CALIBRATION
SVR601 (Lch)
SVR602 (Rch)
IC603 TA7341P
SVR603 (Lch)
SVR604 (Rch)
REC LEVEL
CASSETTE PCB 2219391400
TP4 (Rch)
TP3 (Lch)
GND
IC602 TA7719P
FRONT

Fig. 7-4 Cassette Section Adjustment Points

7-3. ELECTRICAL ADJUSTMENT

Step	Adjustment Item	Mode	Test Tape & Supply Signal	Adjustment Point	Test Point	Result	Remarks
1	DOLBY CALIBRATION	PB	315 Hz 0VU	SVR601 (Lch) SVR602 (Rch)	TP3 (Lch) TP4 (Rch)	210 mV RMS	● Set TAPE SELECTOR switch to NORMAL.
2	BIAS OSC FREQUENCY	REC PAUSE	NORMAL Blank Tape NO SIGNAL	L605	TP1 (Lch) TP2 (Rch)	85.0 kHz	● Set the switches. BEAT CANCEL → 1 TAPE SELECTOR → CrO_2. ● See Fig. 7-3.
3	BIAS OSC FREQUENCY (Confirmation)	REC	NORMAL Blank Tape NO SIGNAL	None	TP1 (Lch) TP2 (Rch)	82.5 kHz	● Set the switches. BEAT CANCEL → 2 TAPE SELECTOR → CrO_2.
4	BIAS CURRENT	REC PAUSE	NORMAL Blank Tape NO SIGNAL	TC601 (Lch) TC602 (Rch)	TP1 (Lch) TP2 (Rch)	3.5 mV RMS	● Set the switches. BEAT CANCEL → 1 TAPE SELECTOR → NORMAL
5	REC LEVEL	REC/PB	NORMAL Blank Tape 1 kHz −8.7 dBm (282.5 mV RMS)	SVR603 (Lch) SVR604 (Rch)	TP3 (Lch) TP4 (Rch)	−8.2 dBm (300 mV RMS)	● Set the switches. FUNCTION SELECTOR → AUX/CD VOLUME → MINIMUM EQUALIZER MODE → OFF TAPE SELECTOR → NORMAL
6	NORMAL FREQUENCY RESPONSE	REC/PB	NORMAL Blank Tape 1 kHz/10 kHz −31.7 dBm	TC601 (Lch) TC602 (Rch)	TP3 (Lch) TP4 (Rch)	1 kHz/10 kHz flat ± 1 dBm	● Set the switches. FUNCTION SELECTOR → AUX/CD VOLUME → MINIMUM EQUALIZER MODE → OFF TAPE SELECTOR → NORMAL

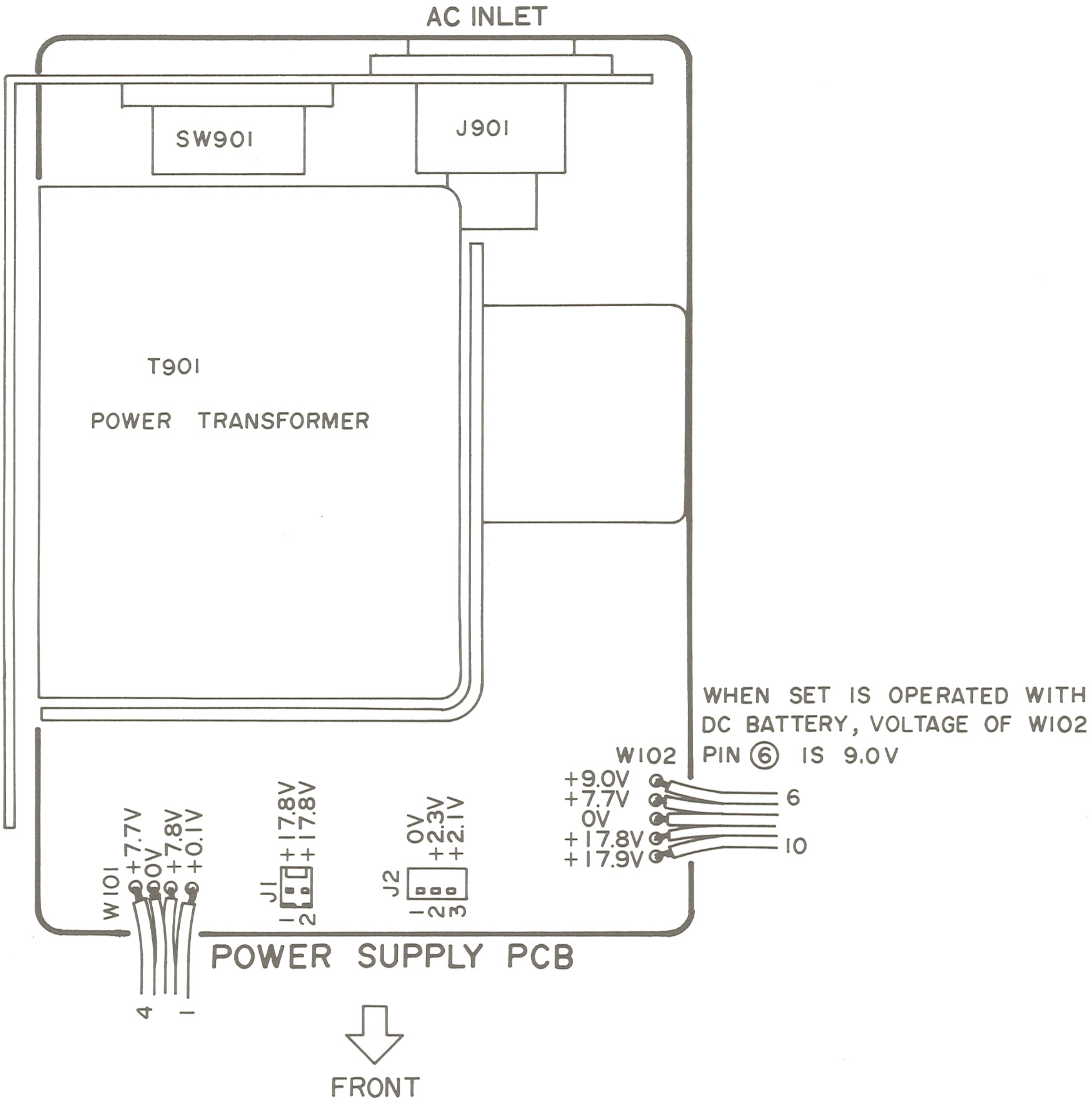
NOTES:
1. Set the DOLBY switch to OFF position.
2. Use the following cassette measuring tapes:

NORMAL	Tape	:	Maxell	UDI	C-60
CrO_2	Tape	:	TDK	SA	C-60
METAL	Tape	:	TDK	MA	C-60

3. Refer to Fig. 7-4 for the adjustment.

VIII. CONFIRMATION OF REGULATOR OUTPUT

Confirm that the voltages measured by a digital DC voltmeter at each point are as indicated in Fig. 8-1.


AC INLET
SW901
J901
T901
POWER TRANSFORMER
W102
+9.0V
+7.7V
0V
+17.8V
+17.9V
6
10
W101
+7.7V
0V
+7.8V
+0.1V
4
1
J1
+17.8V
+17.8V
1
2
J2
0V
+2.3V
+2.1V
1
2
3
POWER SUPPLY PCB
FRONT

WHEN SET IS OPERATED WITH DC BATTERY, VOLTAGE OF W102 PIN ⑥ IS 9.0V

Fig. 8-1

IX. PC BOARD TITLES AND IDENTIFICATION NUMBERS

PC Board Title		PC Board Number	Remarks
RADIO	PC BOARD	2219391100	
LED	PC BOARD	2219391200	
POINTER	PC BOARD	2219391300	
CASSETTE	PC BOARD	2219391400	
SW (A)	PC BOARD	2219391500	
SW (B)	PC BOARD	2219391600	
INDICATOR	PC BOARD	2219391800	
AF	PC BOARD	2219391900	
POWER SW	PC BOARD	2219392000	
EQUALIZER	PC BOARD	2219392200	
POWER	PC BOARD	2219392300	FS $\boxed{U}$ $\boxed{S}$ $\boxed{C}$ FU $\boxed{A}$ FL $\boxed{B、E}$
MAIN	PC BOARD		

SECTION 2

PARTS LIST

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8. POWER PC BOARD 31
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Resistors and Capacitors which are not listed in this parts list, please refer to COMMON LIST FOR SERVICE PARTS.

ATTENTION

1. When placing an order for parts, be sure to list the parts no. model no., and description of each part. If any of this information is omitted, there are instances in which parts cannot be shipped or the wrong parts will be delivered.
2. Please be careful not to make a mistake in the parts no. If the parts no. is in error, a part different from the one ordered may be delivered.
3. Because part numbers and part definitions and supply in the Preliminary Parts List may have been the subject of changes, please use this parts list for all future reference.

HOW TO USE THIS PARTS LIST

1. This Parts List shows those parts which are considered necessary for repairs. Other parts, such as resistors and capacitors, are shown in the "Common List for Service Parts" from which these parts should be selected and parts.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
4. How to read the parts list
   a) Mechanism Block
   b) P.C Board Block

2. HEAD BASE BLOCK

REF. NO.	PART NO.	DESCRIPTION
2-1x	BH-T2023A320A	HEAD BASE BLOCK GX-F66R
2-2	HP-H2206A010A	HEAD R/P PR4-8FU C
2-3	ZS-477876	PAN20×03STL CMT
2-4	ZS-536488	BID20×08STL CMT
2-5	ZG-402895	CS ANGLE ADJUST SPRING

SP (Service Parts) Classification

A small "x" indicates the inability to show that particular part in the Photo or Illustration.

This number corresponds with the individual parts index number in that figure

This number corresponds with the Figure Number

6. SYS. CON. P C BOARD BLOCK

REF. NO.	PART NO.	DESCRIPTION
6-1	BA-T2034A070A	PC SYS CON BLK GX-F44R
6-IC1	EI-324536	IC HD14049BP
6-IC2	EI-336801	IC MB8841-564M
6-IC3	EI-331661	IC SN7405N
6-IC4	EI-336725	IC M54527P
6-TR1to4	ET-200985	TR 2SC2603 F,G
6-TR5to28	ET-554657	TR 2SA733A P,Q
6-D1	ED-318292	D SILICON H 1S2473T-77 T26
6-D2to4	ED-308952	D GERMA V 1K34A-LR F07
6-D5to10	ED-318292	D SILICON H 1S2473T-77 T26
6-X1	EI-318384	OSC X'TAL NC-18C 3.579545MHZ

SP (Service Parts) Classification

These reference symbols correspond with component symbols in the Schematic Diagrams.

5. The kind of part and its installation position can both be determined by the Part Number. To determine where a part number is listed, utilize the Parts Index at the end of the Parts List. It is necessary first of all to find the Part Number. This can be accomplished by using the Reference Number listed at the right of the part number in the Parts Index.

WARNING

⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS

AVERTISSEMENT

⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÉCES RECOMMANDEES PAR LÉ FABRICANT

RECOMMENDED SPARE PARTS

Because, if the parts listed below are on hand, almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

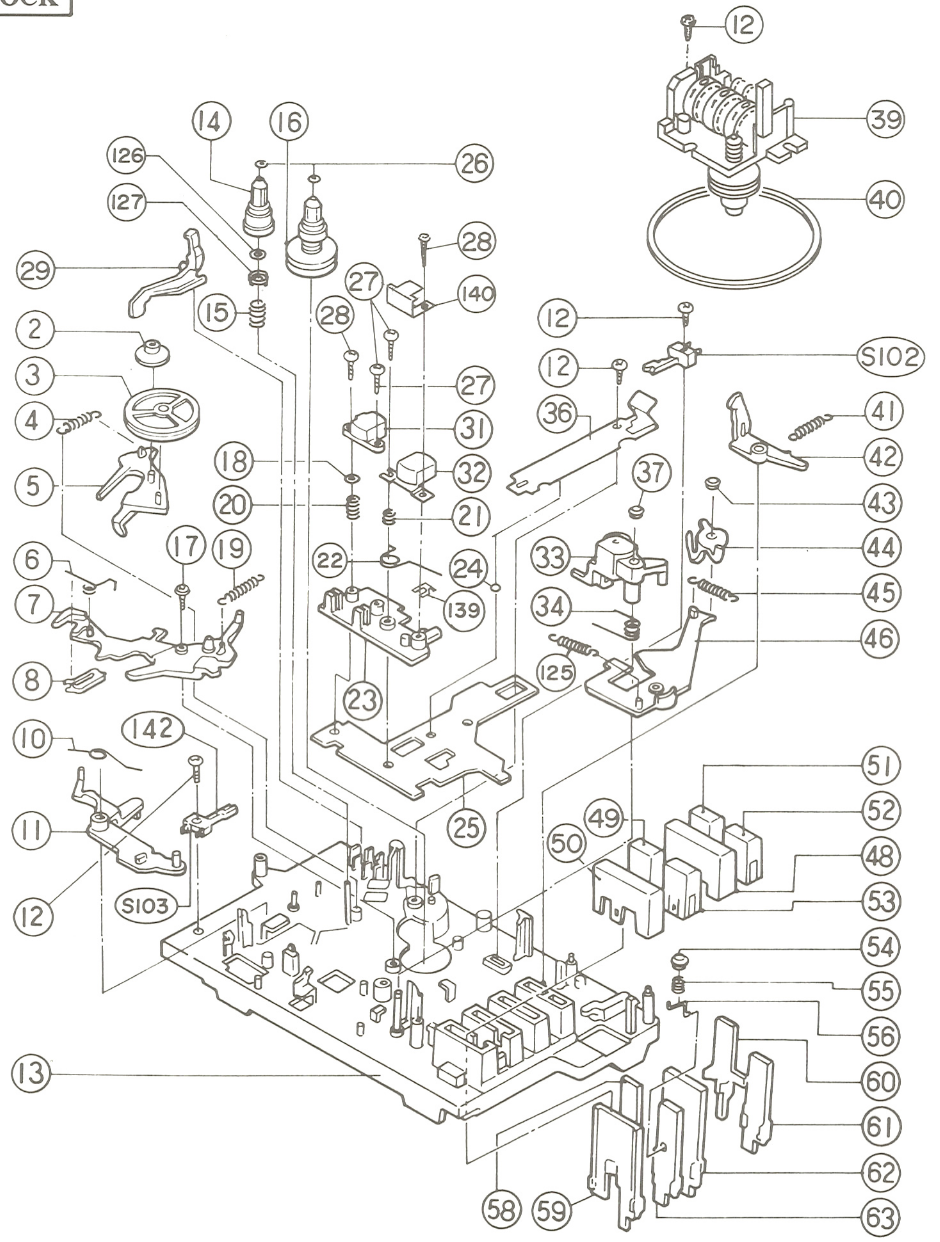
NO.		PART NO.	DESCRIPTION
1	N	BL-713709	PINCH ROLLER ASSY
2	N	BM-715865	MOTOR ASSY W/PULLEY 009E009A
3	N	BT-713956	⚠ TRANS POWER 22224705 PJ-41 [U]
4	N	BT-715562	⚠ TRANS POWER 22224712 [A]
5	N	BT-715563	⚠ TRANS POWER 22224713 [C]
6	N	BT-715564	⚠ TRANS POWER 22224714 [S]
7	N	BT-715565	⚠ TRANS POWER 22224715 [E,V]
8		EC-711437	C S-FIX
9		EC-709431	C S-FIX R
10		EC-741922	C S-FIX 8PF
11	N	EC-715570	CS-FIX [FL]
12	N	EC-749457	CS-FIX
13	N	ED-713908	D LED LN15BP
14		ED-703243	D LED LN217RP RED
15		ED-701131	D LED LN317GP
16	N	ED-713911	D LED LN342GP
17		ED-706596	D SILICON KB167
18	N	ED-713944	D SILICON S5VB10
19		ED-713348	D SILICON 1SS176
20	N	ED-713919	D SILICON 1SS178
21		ED-702195	D SILICON 1S1555V-TP3
22		ED-713917	D SILICON 20A90
23		ED-337606	D ZENER H 05Z6.2 Y
24		ED-300257	D ZENER H 05Z6.8 X
25		ED-347149	D ZENER H 05Z8.2 Y
26		EE-713696	ANT ROD
27	N	EE-713900	VC POLY A8439 22308309
28	N	EF-300609	⚠ FUSE FST3100 T 250V 5.00A [U,S]
29		EH-749216	FILTER CE E10.7S
30		EI-351879	IC AN6888
31	N	EI-713943	IC BA333
32	N	EI-713907	IC BA4232AL
33	N	EI-713942	IC TA7270P
34		EI-709447	IC TA7325P
35		EI-709427	IC TA7341P
36	N	EI-713916	IC TA7719P
37		EI-701061	IC μPC1197C
38		EI-704424	IC μPC 4558C
39		EO-713192	COIL IFT FM-M 22265844
40	N	EO-713910	COIL IFT-AM-M-CE 22264907
41	N	EO-713909	COIL IFT-FM-D 22267441
42		EO-709409	COIL MPX 22232272
43	N	EP-713750	SOLENOID DC 9V
44		ER-702368	⚠ R FUSE 1/4W 2R2J
45		ER-710380	⚠ R FUSE 1/4W 4R7J
46	N	ES-356115	⚠ SW PUSH J-U3066#01 01-1 [C,A]
47	N	ES-713958	⚠ SW SELECTOR [U,A]
48	N	ES-713752	SW LEAF
49	N	ES-713753	SW LEAF
50	N	ES-713754	SW LEAF
51	N	ES-713756	SW LEAF
52	N	ES-713922	SW PUSH
53	N	ES-713927	SW PUSH
54	N	ES-713936	SW PUSH
55	N	ES-713937	SW PUSH
56	N	ES-713912	SW PUSH 4THROW
57		ES-709453	SW SLIDE
58	N	ES-713920	SW SLIDE
59		ET-353734	TR FET 2SJ103 GR,BL
60	N	ET-713901	TR FET 2SK192A-Y
61		ET-336864	TR FET 2SK223 F
62		ET-308867	TR 2SA1015 O,Y,GR
63		ET-328861	TR 2SA562TM O,Y
64		ET-330225	TR 2SC1815 BL
65		ET-702699	TR 2SC1923 R
66		ET-325482	TR 2SC1959 Y
67		ET-328844	TR 2SC2120 O,Y
68		ET-307195	TR 2SC2240 GR,BL
69		ET-702748	TR 2SC380TM R
70		ET-338565	TR 2SD1302 R,S
71		ET-349285	TR 2SD1406 Y
72		ET-351853	TR. FET 2SK161 Y
73		EV-706603	R S-FIX 103
74		EV-713519	R S-FIX 103
75	N	EV-713926	VR SLIDE VRS20W 203
76	N	EV-713923	VR SLIDE VRS20W 204
77	N	EV-713925	VR SLIDE VRS45A 104
78	N	HE-713707	HEAD E HET-255
79	N	HP-713708	HEAD R/P HRPT-459
80	N	MB-713747	BELT CENTER
81	N	MB-713959	BELT COUNTER
82	N	MB-713726	BELT DRIVE
83		MB-713743	CUSHION MOTOR
84	N	MC-713960	COUNTER
85	N	MT-713695	S REEL DRUM
86	N	MT-713697	TU REEL DRUM
87	N	MZ-713734	CAM GEAR PAUSE
88	N	MZ-713735	CAM GEAR PLAY
89	N	MZ-713691	GEAR FF
90	N	MZ-713748	GEAR T. UP
91	N	SS-713894	SPEAKER SP-100 40HMS 15W
92	N	SS-713895	SPEAKER SP-30

"NOTE" N: New Parts

SYMBOL FOR DESTINATION

[FU-A] : AAL (U.S.A)
[FL-B] : UK (England)
[FS-C] : CSA (Canada)
[FL-E] : CEE (Europe)
[FS-S] : SAA (Australia)
[FS-U] : U/T (Universal Area)
[FL-V] : VDE (West Germany)

MECHA BLOCK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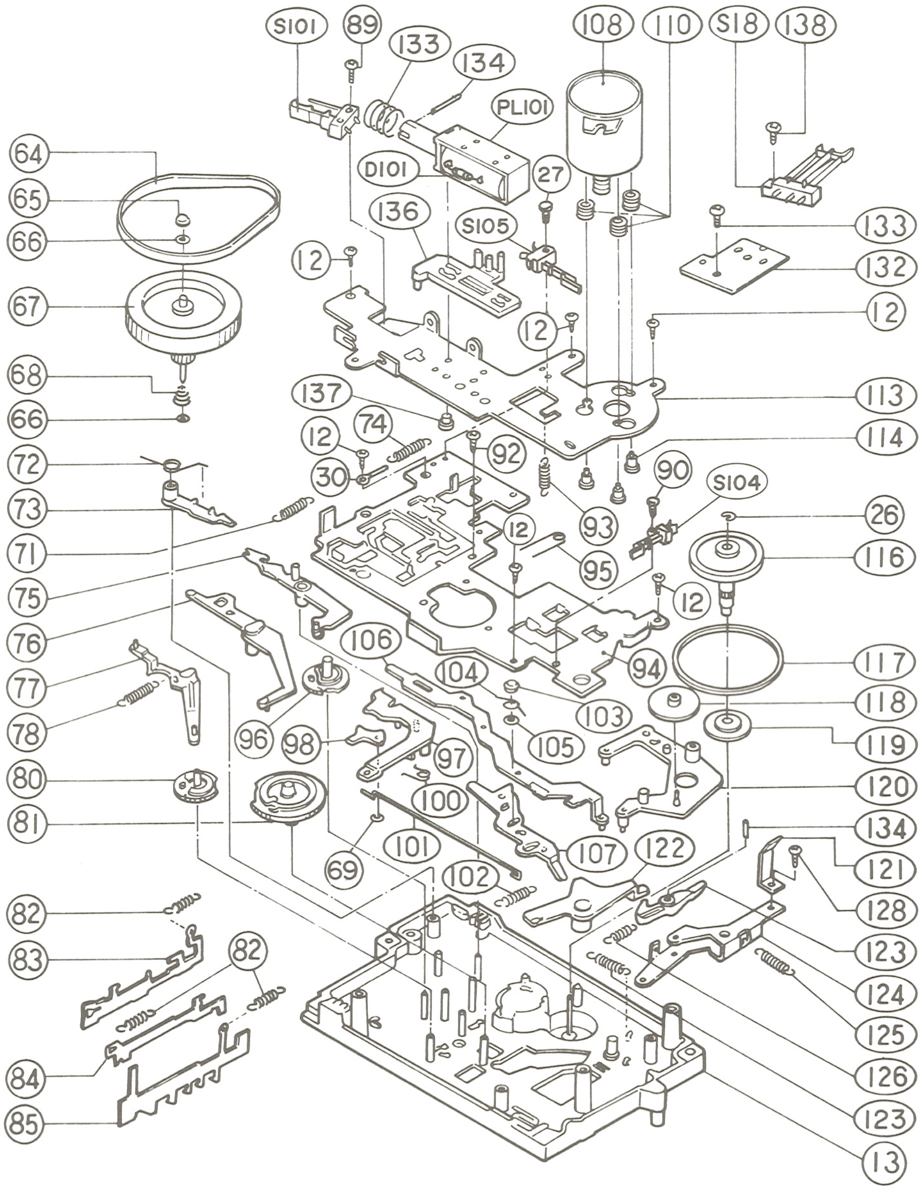
1. MECHA BLOCK

REF. NO.	PART NO.	DESCRIPTION
1-1	BB-713961	MECHA MU-T-410 BLK
1-2	MZ-713690	GEAR REW
1-3	MZ-713691	GEAR FF
1-6	ZG-713693	SP REW
1-10	ZG-713694	SP PLAY LEVER
1-14	MT-713695	S REEL DRUM
1-15	ZG-713692	SP B.T
1-16	MT-713697	TU REEL DRUM
1-18	ZW-715856	WASHER 26-7.50.5ZMC
1-19	ZG-715845	SP 04TN37.5
1-20	ZG-713702	SP E HEAD
1-21	ZG-713703	SP AZIMUTH
1-22	ZG-713704	SP HEAD SLIDER
1-23	HZ-715862	BASE HEAD
1-25	MZ-715861	SLIDER HEAD
1-26	ZW-715864	PW 16×040×050
1-27	ZS-715857	T2 BID20×10STL CMT
1-28	ZS-715859	T2 BID20×12STL BNI
1-29	ML-713689	LEVER REC LOCK
1-31	HE-713707	HEAD E HET-255 [ERASE HEAD]
1-32	HP-713708	HEAD R/P HRPT-459 [REC/PB HEAD]
1-33	BL-713709	PINCH ROLLER ASSY
1-34	ZG-713710	SP PINCH ROLLER
1-36	ZG-715841	SP HOLDER
1-37	MZ-715843	BUSH 3D2
1-39	MC-713960	COUNTER
1-40	MB-713959	BELT COUNTER
1-43	ZW-711691	BUSHING
1-45	ZG-715849	SP 026TN15.5
1-48	SB-713716	BUTTON PLAY
1-49	SB-713718	BUTTON REC
1-50	SB-713717	BUTTON STOP
1-51	SB-713719	BUTTON REW
1-52	SB-713720	BUTTON FF
1-53	SB-713721	BUTTON PAUSE
1-54	MZ-715854	BUSH PAUSE
1-55	ZG-715850	SP PAUSE LOCK
1-56	MZ-715848	PAUSE LOCK
1-58	MZ-713952	SLIDE OPERATION REC
1-59	MZ-713953	SLIDE OPERATION STOP
1-60	MZ-713950	SLIDE OPERATION REW
1-61	MZ-713949	SLIDE OPERATION FF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REF. NO.	PART NO.	DESCRIPTION
1-62	MZ-713948	SLIDE OPERATION PLAY
1-63	MZ-713951	SLIDE OPERATION PAUSE
1-64	MB-713726	BELT DRIVE
1-65	MV-707813	BEARING
1-66	ZW-715844	WASHER
1-67	BF-713729	FLY WHEEL ASSY
1-68	ZG-713730	SP THRUST
1-72	ZG-713732	SP ASO LEVER
1-80	MZ-713734	CAM GEAR PAUSE
1-81	MZ-713735	CAM GEAR PLAY
1-95	ZG-713736	SP SLIDER REW
1-96	MZ-713737	CAM GEAR FAST
1-97	ML-715853	LEVER OPERATION REC
1-100	ZG-715851	SP PAUSE S LEVER
1-101	MH-713739	JOINT REC
1-102	ZG-715842	SP 03TN12.5
1-104	ZG-713741	SP LEVER DETECT
1-107	ML-715846	LEVER ASO DETECTOR
1-108	BM-715865	MOTOR ASSY W/PULLEY 009E009A
1-110	MB-713743	CUSHION MOTOR
1-114	ZS-715863	SCREW SPECIAL 26×1.8H4.9

REF. NO.	PART NO.	DESCRIPTION
1-116	MR-713746	PULLEY CENTER ASSY
1-117	MB-713747	BELT CENTER
1-118	MZ-713748	GEAR T.UP
1-119	MZ-713749	GEAR FAST
1-133	ZG-713955	SP SOLENOID
1-134	ZG-713954	SP PIN 2.5
1-136	MZ-715855	SLIDER SERCH
1-S101	ES-713756	SW LEAF [PAUSE]
1-S102	ES-713756	SW LEAF [FF/RWD]
1-S103	ES-713753	SW LEAF [PLAY]
1-S104	ES-713754	SW LEAF [REC]
1-S105	ES-713752	SW LEAF [MAIN]
1-PL101	EP-713750	SOLENOID DC 9V
1-D101	ED-306732	D SILICON S5277D 200/1.0A

NOTE: Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

2. PC BOARD BLOCK

REF. NO.	PART NO.	DESCRIPTION
2-1A	BA-715595	PC RADIO BLK PJ-41 (U,S)
2-1B	BA-715594	PC RADIO BLK PJ-41 (A,C)
2-1C	BA-715597	PC RADIO BLK PJ-41 (E,B)
2-1D	BA-715596	PC RADIO BLK PJ-41 (V)
2-2A	BA-715602	PC AF BLK PJ-41 (U,E,B)
2-2B	BA-715600	PC AF BLK PJ-41 (C,A,S)
2-2C	BA-715603	PC AF BLK PJ-41 (V)
2-3	BA-715599	PC EQ BLK PJ-41
2-4	BA-715598	PC CASSETTE BLK PJ-41
2-5A	BA-715607	PC POWER BLK PJ-41 (U)
2-5B	BA-715605	PC POWER BLK PJ-41 (C)
2-5C	BA-715604	PC POWER BLK PJ-41 (A)
2-5D	BA-715587	PC POWER BLK PJ-41 (E,V)
2-5E	BA-715606	PC POWER BLK PJ-41 (B,S)

NOTES: (1) PC RADIO BLK consists of following PC BOARDS.
- RADIO PC BOARD
- LED PC BOARD
- POINTER PC BOARD

(2) PC AF BLK consists of following PC BOARDS.
- AF PC BOARD
- MAIN PC BOARD
- JACK PC BOARD
- POWER SW PC BOARD

(3) PC CASSETTE BLK consists of following PC BOARDS.
- CASSETTE PC BOARD
- INDICATOR PC BOARD
- SW (A) PC BOARD
- SW (B) PC BOARD

3. RADIO PC BOARD

REF. NO.	PART NO.	DESCRIPTION
3-IC201	EI-713907	IC BA4232AL
3-IC301	EI-701061	IC μPC1197C
3-TR101	ET-351853	TR. FET 2SK161 Y
3-TR102,103	ET-702699	TR 2SC1923 R
3-TR104	ET-713901	TR FET 2SK192A-Y
3-TR201	ET-702699	TR 2SC1923 R
3-TR202,203	ET-702748	TR 2SC380TM R
3-TR204to210	ET-330225	TR 2SC1815 BL
3-TR301to304	ET-330225	TR 2SC1815 BL
3-TR305	ET-308867	TR 2SA1015 O,Y,GR
3-D101	ED-713348	D SILICON 1SS176
3-D102	ED-706596	D SILICON KB167
3-D103,104	ED-713348	D SILICON 1SS176
3-D201,202	ED-713348	D SILICON 1SS176
3-D302,303	ED-713348	D SILICON 1SS176
3-SW101	ES-713912	SW PUSH 4THROW
3-SVR301	EV-706603	R S-FIX 103
3-SVR302	EV-713519	R S-FIX 103
3-L101	EO-713896	COIL RF-FM
3-L102	EO-713897	COIL RF-FM
3-L103	EO-713899	COIL CHOKE
3-L105A	EO-713898	COIL RF-FM [FU,FS]
3-L105B	EO-715569	COIL RF FM [FL]
3-L106	EO-713899	COIL CHOKE
3-L108A	EO-713904	COIL ANT-MW 302500 [FU,FS]
3-L108B	EO-715560	COIL ANT LW 203300 [FL]
3-L109A	EO-713196	COIL OSC MW 22245450[FU,FS]
3-L109B	EO-715561	COIL OSC LW22205074 [FL]
3-L110A	EO-713905	COIL ANT-SW 225800 [FU,FS]
3-L110B	EO-713904	COIL ANT-MW 302500 [FL]
3-L111A	EO-713197	COIL OSC SW 22285353[FU,FS]
3-L111B	EO-713196	COIL OSC MW 22245450 [FL]
3-L112A	EO-713906	COIL ANT-SW [FU,FS]
3-L112B	EO-715567	COIL ANT SW [FL]
3-L113A	EO-713903	COIL OSC-SW [FU,FS]
3-L113B	EO-715568	COIL OSC SW [FL]
3-IT201	EO-713192	COIL IFT FM-M 22265844
3-IT202	EO-713909	COIL IFT-FM-D 22267441
3-IT203	EO-713910	COIL IFT-AM-M-CE 22264907
3-LC301,302	EO-709409	COIL MPX 22232272
3-CF201,202	EH-749216	FILTER CE E10.7S
3-L201	EO-709483	COIL CHOKE 229
3-TC101to103	EC-741922	C S-FIX 8PF
3-TC104A	EC-749457	C S-FIX [FU,FS]
3-TC104B	EC-711437	C S-FIX [FL]
3-TC105A	EC-741922	C S-FIX 8PF [FU,FS]
3-TC105B	EC-749457	C S-FIX [FL]
3-TC106A	EC-749457	C S-FIX [FU,FS]
3-TC106B	EC-715570	CS-FIX [FL]
3-TC107A	EC-741922	C S-FIX 8PF [FU,FS]
3-TC107B	EC-749457	C S-FIX [FL]
3-TC108	EC-741922	C S-FIX 8PF
3-R218	ER-308503	⚠ R OMF H FS 1W 181J
3-R301,336	ER-324251	⚠ R OMF H FS 1W 101J
3-VC101	EE-713900	VC POLY A8439 22308309

4. CASSETTE PC BOARD

REF. NO.	PART NO.	DESCRIPTION
4-IC601	EI-709447	IC TA7325P
4-IC602	EI-713916	IC TA7719P
4-IC603	EI-709427	IC TA7341P
4-IC604	EI-704424	IC μPC4558C
4-TR601	ET-336864	TR FET 2SK223 F
4-TR602	ET-336864	TR FET 2SK223 F
4-TR603,604	ET-338565	TR 2SD1302 R,S
4-TR605to610	ET-353734	TR FET 2SJ103 GR,BL
4-TR611	ET-308867	TR 2SA1015 O,Y,GR
4-TR612to618	ET-330225	TR 2SC1815 BL
4-TR619,620	ET-338565	TR 2SD1302 R,S
4-TR623to626	ET-330225	TR 2SC1815 BL
4-TR627,628	ET-338565	TR 2SD1302 R,S
4-TR629,630	ET-325482	TR 2SC1959 Y
4-TR631	ET-328861	TR 2SA562TM O,Y
4-TR632	ET-330225	TR 2SC1815 BL
4-TR633,634	ET-308867	TR 2SA1015 O,Y,GR
4-TR635	ET-330225	TR 2SC1815 BL
4-TR636	ET-308867	TR 2SA1015 O,Y,GR
4-TR637,638	ET-330225	TR 2SC1815 BL
4-TR639	ET-308867	TR 2SA1015 O,Y,GR
4-TR640	ET-330225	TR 2SC1815 BL
4-TR642	ET-308867	TR 2SA1015 O,Y,GR
4-TR643	ET-330225	TR 2SC1815 BL
4-D601,602	ED-713919	D SILICON 1SS178
4-D603to610	ED-713348	⚠ D SILICON 1SS176
4-D611to614	ED-713917	D SILICON 20A90
4-SW801	ES-713920	SW SLIDE [BEAT SW]
4-SVR601to604	EV-706603	R S-FIX 103
4-L601,602	EO-713918	COIL CHOKE AF
4-L603,604	EO-709425	COIL CHOKE AF 12MH
4-L605	EO-713921	COIL OSC AF
4-TC601,602	EC-709431	C S-FIX R
4-R389	ER-341940	R OMF H SNP FS 1W 100J
4-R720	ER-321619	⚠ R OMF H SNP FS 1W 101J
4-R768	ER-707982	⚠ R OMF FS 1W 330J
4-R853	ER-341940	⚠ R OMF H SNP FS 1W 100J
4-R854	ER-708068	⚠ R OMF H SNP FS 1W 4R7J
4-R855	ER-341633	⚠ R OMF H SNP FS 1W 680J
4-R856	ER-701107	⚠ R OMF 1W 151J

5. EQ PC BOARD

REF. NO.	PART NO.	DESCRIPTION
5-TR501,502	ET-307195	TR 2SC2240 GR,BL
5-VR501	EV-713926	VR SLIDE VRS20W 203[100HZ]
5-VR502	EV-713926	VR SLIDE VRS20W 203[350HZ]
5-VR503	EV-713926	VR SLIDE VRS20W 203[1KHZ]
5-VR504	EV-713926	VR SLIDE VRS20W 203 [3.5KHZ]
5-VR505	EV-713926	VR SLIDE VRS20W 203[10KHZ]
5-VR506	EV-713923	VR SLIDE VRS20W 204 [BALANCE]
5-VR507	EV-713925	VR SLIDE VRS45A 104 [VOLUME]
5-SW501	ES-713927	SW PUSH [EQ MODE]
5-L501,502	EO-713928	COIL CHOKE AF
5-L503,504	EO-713929	COIL CHOKE AF
5-L505,506	EO-713930	COIL CHOKE AF
5-L507,508	EO-713931	COIL CHOKE AF
5-L509,510	EO-713932	COIL CHOKE AF
5-R523	ER-324251	⚠ R OMF H FS 1W 101J

6. AF PC BOARD

REF. NO.	PART NO.	DESCRIPTION
6-IC401	EI-709447	IC TA7325P
6-IC402	EI-713943	IC BA333
6-TR401,402	ET-307195	TR 2SC2240 GR,BL
6-D401,402	ED-702195	D SILICON 1S1555V-TP3
6-SW401	ES-713936	SW PUSH
6-R437	ER-704870	⚠ R OMF H 2W 220J
6-J401	EJ-713941	JACK US 6P
6-J402	EJ-713934	JACK 3.5ST [AUX]
6-J403	EJ-713945	JACK 3.5 [MIC]

7. MAIN PC BOARD

REF. NO.	PART NO.	DESCRIPTION
7-IC601,602	EI-713942	⚠ IC TA7270P
7-TR1	ET-349285	⚠ TR 2SD1406 Y
7-D2	ED-347149	D ZENER H 05Z8.2 Y
7-D9	ED-711466	D SILICON S5277B
7-R1	ER-702368	⚠ R FUSE 1/4W 2R2J
7-R2	ER-303840	R OMF H FS 1W 470J
7-R615to620	ER-710380	⚠ R FUSE 1/4W 4R7J
7-R621,622	ER-708051	⚠ R OMF H SNP FS 1W 390J
7-C6	EC-354048	C EC V CUT 04W 682M 20.0DC
7-TM601	EJ-713938	TERMINAL 4P
7-J1	EJ-713940	JACK EXT POWER
7-J601	EJ-713933	JACK 3.5ST

8. POWER PC BOARD

REF. NO.	PART NO.	DESCRIPTION
8-T901A	BT-713956	⚠ TRANS POWER 22224705 PJ-41[U]
8-T901B	BT-715563	⚠ TRANS POWER 22224713[C]
8-T901C	BT-715562	⚠ TRANS POWER 22224712[A]
8-T901D	BT-715565	⚠ TRANS POWER 22224715 [E,V]
8-T901E	BT-715564	⚠ TRANS POWER 22224714 [B,S]
8-TR2	ET-349285	⚠ TR 2SD1406 Y
8-TR3	ET-328844	⚠ TR 2SC2120 O,Y
8-D1	ED-713944	⚠ D SILICON S5VB10
8-D3	ED-347149	D ZENER H 05Z8.2 Y
8-D5	ED-337606	D ZENER H 05Z6.2 Y
8-SW901	ES-713958	⚠ SW SELECTOR [U,A]
8-J901A	EJ-713947	⚠ SOCKET INLET [U,S]
8-J901B	EJ-715559	⚠ SOCKET INLET [C,A]
8-R4	ER-702368	⚠ R FUSE 1/4W 2R2J
8-R5	ER-303840	R OMF H FS 1W 470J
8-R8	ER-341633	R OMF H SNP FS 1W 680J
8-F1A	EF-300609	⚠ FUSE FST3100 T 250V 5.00A [U,S]
8-F1B	EF-346115	⚠ FUSE TSC 125V 6.30A [C,A]
8-F2	EF-346115	⚠ FUSE TSC 125V 6.30A [C,A]
8-1	EJ-715593	PLUG 10P CORD

9. INDICATOR PC BOARD

REF. NO.	PART NO.	DESCRIPTION
9-IC605	EI-351879	IC AN6888
9-TR641	ET-330225	TR 2SC1815 BL
9-D615to624	ED-701131	D LED LN317GP
9-D625,626	ED-703243	D LED LN217RP RED
9-D627	ED-701131	D LED LN317GP
9-D628	ED-300257	D ZENER H 05Z6.8 X
9-R880	ER-703547	R OMF 1W 180J

10. POINTER PC BOARD

REF. NO.	PART NO.	DESCRIPTION
10-D203	ED-713908	D LED LN15BP

11. LED PC BOARD

REF. NO.	PART NO.	DESCRIPTION
11-D301	ED-713911	D LED LN342GP [FM STEREO]

12. SW (A) PC BOARD

REF. NO.	PART NO.	DESCRIPTION
12-SW601	ES-713922	SW PUSH [SW601 AND SW602]

13. SW (B) PC BOARD

REF. NO.	PART NO.	DESCRIPTION
13-SW603	ES-709453	SW SLIDE

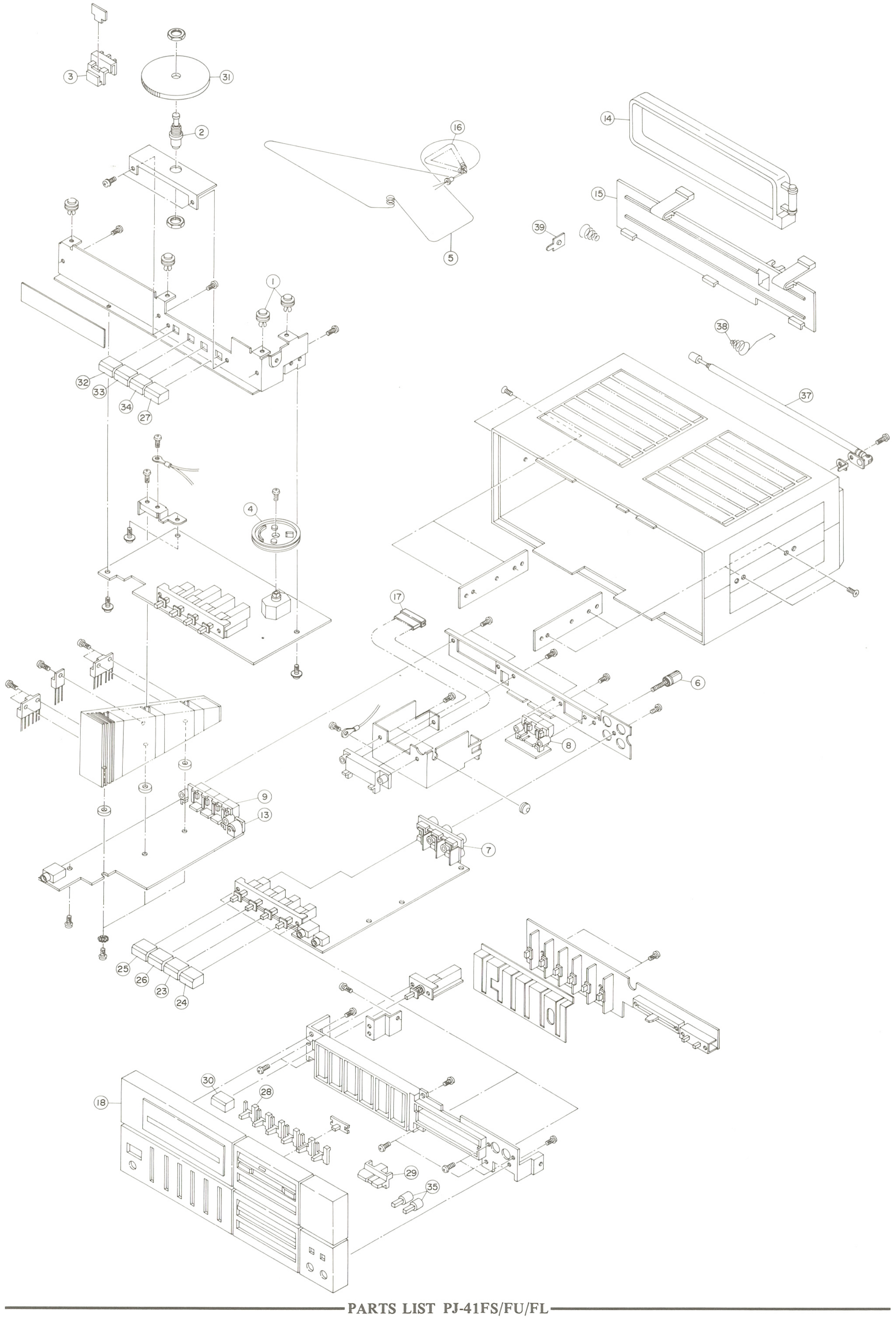
14. JACK PC BOARD

REF. NO.	PART NO.	DESCRIPTION
14-TM101	EJ-713939	TERMINAL 2P

15. POWER SW PC BOARD

REF. NO.	PART NO.	DESCRIPTION
15-SW1	ES-713937	SW PUSH
15-R3	ER-658124	⚠ R OMF H FS 1W 100J

FINAL ASSEMBLY BLOCK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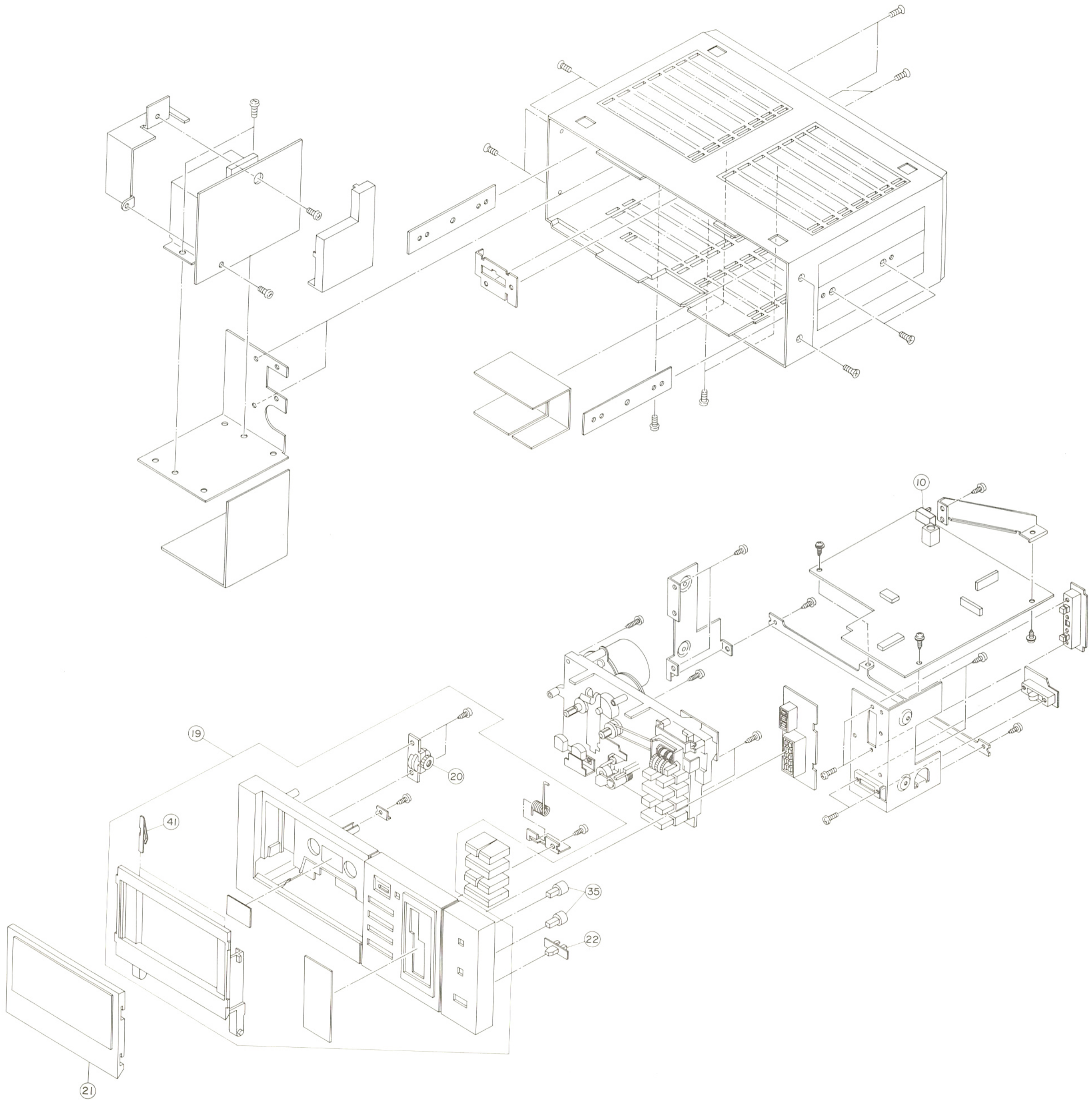
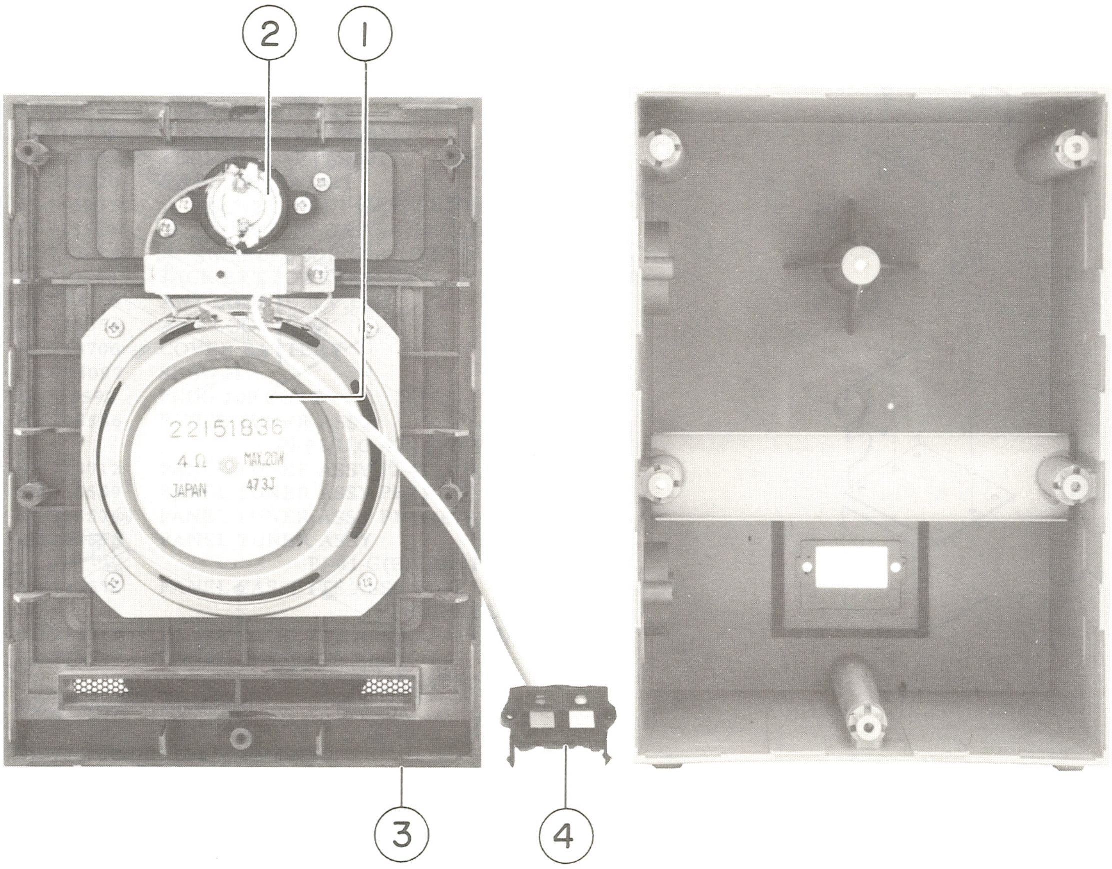


16. FINAL ASSEMBLY BLOCK

REF. NO.	PART NO.	DESCRIPTION
16-1	MR-713886	PULLEY ASSY
16-2	MS-714139	SHAFT TUNING
16-3	MD-713887	POINTER
16-4	MR-713888	DIAL WHEEL
16-5	TA-713889	DIAL STRING
16-6	EJ-713890	TERMINAL SIP
16-7	EJ-713941	JACK US 6P [J401]
16-8	EJ-713939	TERMINAL 2P [TM101]
16-9	EJ-713938	TERMINAL 4P [TM601]
16-10	ES-713920	SW SLIDE [SW801]
16-11xA	EJ-713947	⚠ SOCKET INLET [U,E,V,E,S] [J901]
16-11xB	EJ-715559	⚠ SOCKET INLET [C,A] [J901]
16-12x	ES-713958	⚠ SW SELECTOR [U,A] [SW901]
16-13	EJ-713940	JACK EXT POWER [J1]
16-14A	EE-713705	ANT LOOP [U,E,V,B,S]
16-14B	EE-715558	ANT LOOP [C,A]
16-15	BC-713706	COVER BATTERY
16-16	ZG-714097	SP SW-H
16-17	EJ-715592	PLUG 10P CORD
16-18A	BD-715586	PANEL TUNER ASSY PJ-41(U,C,A,S) [FU,FS]
16-18AG	BD-713712	PANEL TUNER ASSY PJ-41-G(U,S)[FS]
16-18BG	BD-715589	PANEL TUNER ASSY PJ-41-G(C,A)[C,A]
16-18C	BD-715579	PANEL TUNER ASSY PJ-41(E,V,B)[FL]
16-18CG	BD-715578	PANEL TUNER ASSY PJ-41-G(E,V,B) [FL]
16-19A	BD-715576	PANEL CASSETTE ASSY PJ-41 [FU,FS,FL]
16-19AG	BD-713713	PANEL CASSETTE ASSY PJ-41-G(U)
16-19BG	BD-715591	PANEL CASSETTE ASSY PJ-41-G(C,A) [C,A]
16-20	MZ-714092	DUMPER
16-21	BD-715583	LID CASSETTE
16-21G	BD-713714	LID CASSETTE-G
16-22	SK-715582	KNOB TIMER
16-22G	SK-713885	KNOB TIMER-G
16-23	SB-715584	BUTTON PUSH POWER
16-23G	SB-713745	BUTTON PUSH AUX/CD-G
16-24	SB-715584	BUTTON PUSH POWER
16-24G	SB-713731	BUTTON PUSH PHONO-G
16-25	SB-715584	BUTTON PUSH POWER
16-25G	SB-713738	BUTTON PUSH TUNER-G
16-26	SB-715584	BUTTON PUSH POWER
16-26G	SB-713740	BUTTON PUSH TAPE-G
16-27A	SB-715584	BUTTON PUSH POWER[FU,FS,FL]
16-27AG	SB-713725	BUTTON PUSH MW-G [FU,FS]
16-27BG	SB-715573	BUTTON PUSH LW-G [FL]
16-28	SK-715571	KNOB SLIDE
16-28G	SK-713757	KNOB SLIDE-G
16-29A	SK-715585	KNOB VR [FU,FS]
16-29AG	SK-713883	KNOB VR-G [FU,FS,FL]
16-29B	SK-715572	KNOB VR
16-30	SB-715584	BUTTON PUSH POWER
16-30G	SB-713723	BUTTON PUSH POWER-G
16-31	SK-715581	KNOB TUNING ASSY
16-31G	SK-713884	KNOB TUNING ASSY-G
16-32	SB-715584	BUTTON PUSH POWER
16-32G	SB-713724	BUTTON PUSH FM-G
16-33A	SB-715584	BUTTON PUSH POWER[FU,FS,FL]
16-33AG	SB-713728	BUTTON PUSH SW2-G
16-33BG	SB-715574	BUTTON PUSH SW-G [FL]
16-34A	SB-715584	BUTTON PUSH POWER[FU,FS,FL]
16-34AG	SB-713727	BUTTON PUSH SW1-G [FU,FS]
16-34BG	SB-713725	BUTTON PUSH MW-G [FL]
16-35	SK-715580	KNOB DIRECTION
16-35G	SK-713751	KNOB DIRECTION-G
16-36x	SH-713715	HANDLE ASSY
16-37	EE-713696	ANT ROD
16-38	ZG-713699	SP BATTERY-C
16-39	EJ-713701	TERMINAL BATTERY-A
16-40xA	EW-715152	⚠ AC CORD CP SET [U]
16-40xB	EW-714002	⚠ AC CORD ELPUCSET [C,A]
16-40xC	EW-714007	⚠ AC CORD A2SASET [S]
16-40xD	EW-706565	⚠ AC CORD (E) [E,V]
16-40xE	EW-714006	⚠ AC CORD BSSET [B]
16-41	ZG-715124	SP P

SPEAKER BLOCK


2
1
22151836
4Ω
MAX.20W
JAPAN
473J
3
4

17. SPEAKER BLOCK

REF. NO.	PART NO.	DESCRIPTION
17-1	SS-713894	SPEAKER SP-100 40HMS 15W
17-2	SS-713895	SPEAKER SP-30
17-3	BD-715575	PANEL SPEAKER ASSY
17-3G	BD-713893	PANEL SPEAKER ASSY-G
17-4	EJ-713892	TERMINAL 2P

SYMBOL FOR COLOR VARIATION

NON: SILVER
G: GOLD

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BA-715599	2-3
BA-715600	2-2B
BA-715602	2-2A
BA-715603	2-2C
BA-715604	2-5C
BA-715605	2-5B
BA-715606	2-5E
BA-715607	2-5A
BB-713961	1-1
BC-713706	16-15
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BD-713713	16-19AG
BD-713714	16-21G
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BD-715576	16-19A
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BD-715579	16-18C
BD-715583	16-21
BD-715586	16-18A
BD-715589	16-18BG
BD-715591	16-19BG
BF-713729	1-67
BL-713709	1-33
BM-715865	1-108
BT-713956	8-T901A
BT-715562	8-T901C
BT-715563	8-T901B
BT-715564	8-T901E
BT-715565	8-T901D
EC-354048	7-C6
EC-709431	4-TC602
EC-709431	4-TC601
EC-711437	3-TC104B
EC-715570	3-TC106B
EC-741922	3-TC108
EC-741922	3-TC107A
EC-741922	3-TC105A
EC-741922	3-TC103
EC-741922	3-TC102
EC-741922	3-TC101
EC-749457	3-TC106A
EC-749457	3-TC105B
EC-749457	3-TC107B
EC-749457	3-TC104A
ED-300257	9-D628
ED-306732	1-D101
ED-337606	8-D5
ED-347149	7-D2
ED-347149	8-D3
ED-701131	9-D616
ED-701131	9-D627
ED-701131	9-D619
ED-701131	9-D618
ED-701131	9-D624
ED-701131	9-D617
ED-701131	9-D623
ED-701131	9-D622
ED-701131	9-D620
ED-701131	9-D615
ED-701131	9-D621
ED-702195	6-D401
ED-702195	6-D402
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ED-706596	3-D102
ED-711466	7-D9
ED-713348	3-D201
ED-713348	3-D104
ED-713348	3-D302
ED-713348	3-D101
ED-713348	3-D202
ED-713348	3-D103
ED-713348	3-D303
ED-713348	4-D610
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ED-713348	4-D604
ED-713348	4-D607
ED-713348	4-D605
ED-713348	4-D606
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ED-713911	11-D301
ED-713917	4-D614
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EE-713900	3-VC101
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EF-300609	8-F1A
EF-346115	8-F1B
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EH-749216	3-CF202
EH-749216	3-CF201
EI-351879	9-IC605
EI-701061	3-IC301
EI-704424	4-IC604
EI-709427	4-IC603
EI-709447	4-IC601
EI-709447	6-IC401
EI-713907	3-IC201
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EI-713942	7-IC601
EI-713942	7-IC602
EI-713943	6-IC402
EJ-713701	16-39
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EJ-713934	6-J402
EJ-713938	7-TM601
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EJ-715559	8-J901B
EJ-715559	16-11xB
EJ-715592	16-17
EJ-715593	8-1
EO-709409	3-LC301
EO-709409	3-LC302
EO-709425	4-L604
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EO-709483	3-L201
EO-713192	3-IT201
EO-713196	3-L111B
EO-713196	3-L109A
EO-713197	3-L111A
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EO-713897	3-L102
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EO-713905	3-L110A
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EO-713931	5-L508
EO-713932	5-L510
EO-713932	5-L509
EO-715560	3-L108B
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EP-713750	1-PL101
ER-303840	7-R2
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ER-308503	3-R218
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ET-351853	3-TR101
ET-353734	4-TR607
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ET-702699	3-TR102
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ET-702748	3-TR203
ET-702748	3-TR202
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EV-706603	4-SVR603
EV-706603	4-SVR601
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EV-713923	5-VR506
EV-713925	5-VR507
EV-713926	5-VR503
EV-713926	5-VR505
EV-713926	5-VR501
EV-713926	5-VR504
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AKAI

MODEL PJ-41FS/FU/FL

SCHEMATIC DIAGRAM AND PC BOARDS

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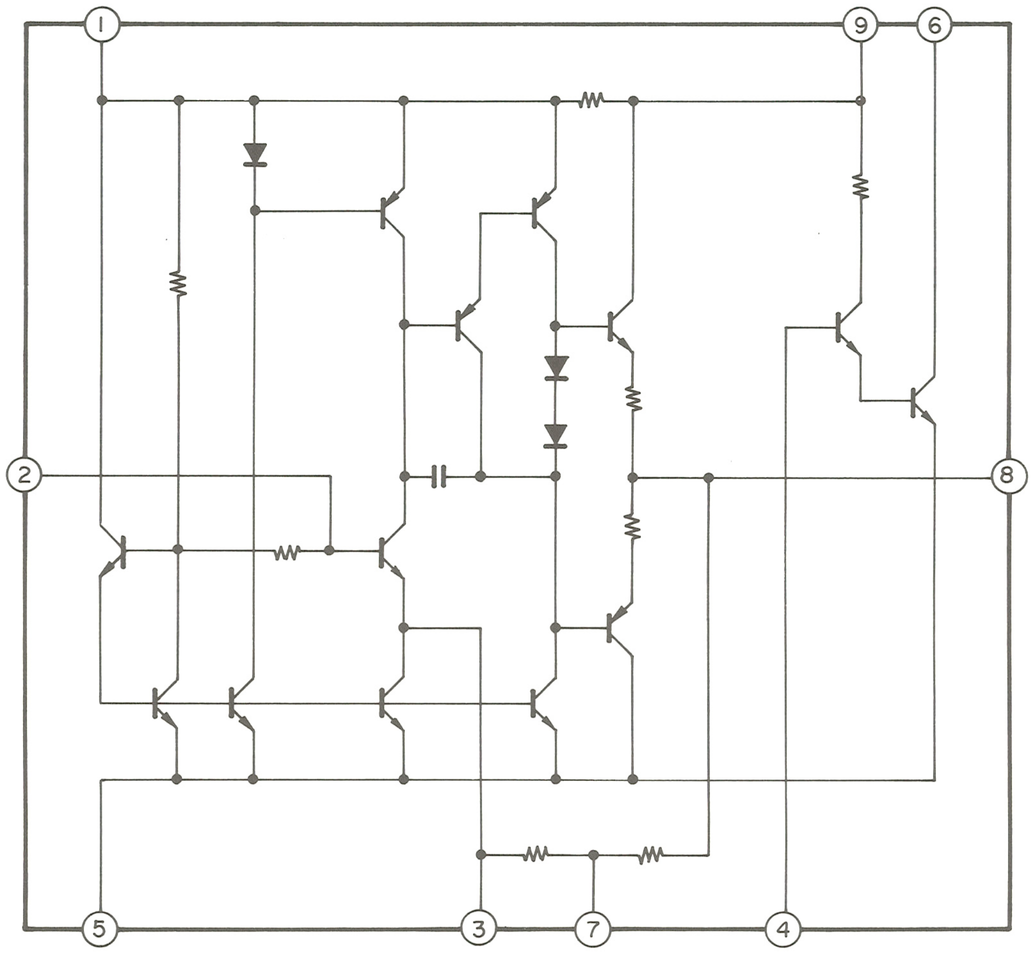
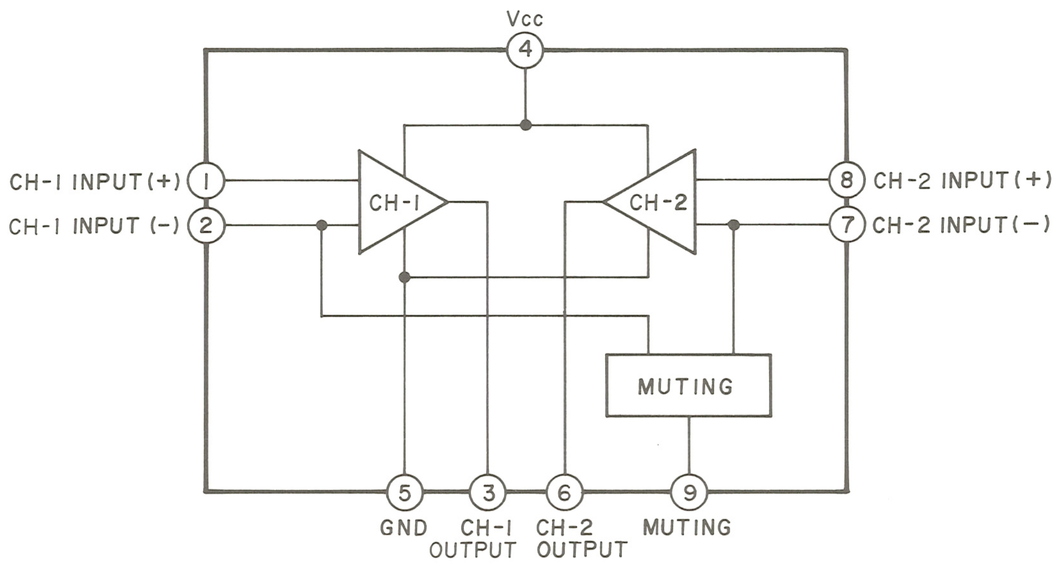
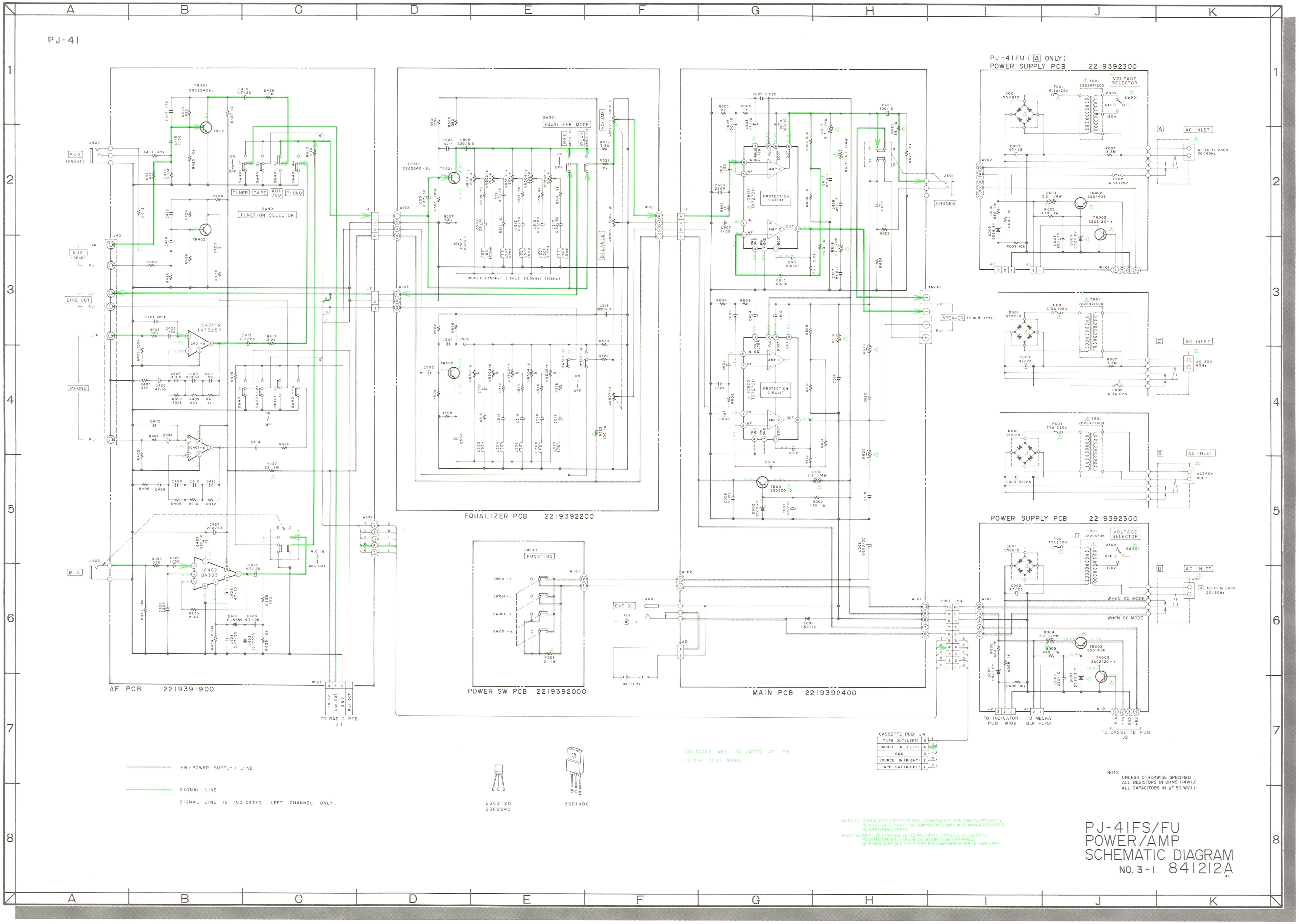
BA333



TA7325P



Vcc
4
CH-1 INPUT(+) 1
CH-1 INPUT (-) 2
CH-1
CH-2
8 CH-2 INPUT(+)
7 CH-2 INPUT(-)
MUTING
5
3
6
9
GND
CH-1 OUTPUT
CH-2 OUTPUT
MUTING


PJ-41
AF PCB 2219391900
EQUALIZER PCB 2219392200
POWER SW PCB 2219392000
MAIN PCB 2219392400
PJ-41FU (A ONLY) POWER SUPPLY PCB 2219392300
POWER SUPPLY PCB 2219392300
AUX (FRONT)
AUX (REAR)
LINE OUT
PHONO
MIC
TUNER
TAPE
AUX /CD
SW401 FUNCTION SELECTOR
SW501 EQUALIZER MODE
VOLUME
BALANCE
REC
PLAY
(100Hz) (350Hz) (1kHz) (3.5kHz) (10kHz)
IC401 TA7325P
IC402 BA333
IC601 TA7270P
IC602 TA7270P
PROTECTION CIRCUIT
PHONES
SPEAKER (4 to 8 ohms)
SW001 FUNCTION
EXT DC 12V
BATTERY
VOLTAGE SELECTOR
AC INLET
AC110 to 240V 50/60Hz
AC120V 60Hz
AC240V 50Hz
WHEN AC MODE
WHEN DC MODE
TO RADIO PCB J1
TO INDICATOR PCB W102
TO MECHA BLK PL101
TO CASSETTE PCB J2
CASSETTE PCB J4
TAPE OUT (LEFT) 5
SOURCE IN (LEFT) 4
GND 3
SOURCE IN (RIGHT) 2
TAPE OUT (RIGHT) 1
MIC IN
MIC OUT
E C B
B C E
2SC2120
2SC2240
2SD1406

+B (POWER SUPPLY) LINE

SIGNAL LINE

SIGNAL LINE IS INDICATED LEFT CHANNEL ONLY.

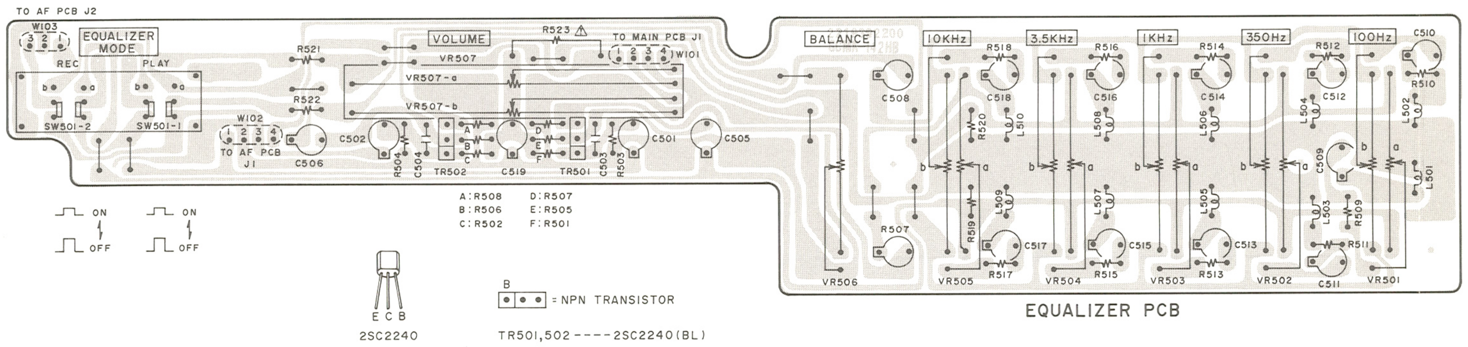
VOLTAGES ARE INDICATED AT PB
(315Hz 0VU) MODE.

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN μF 50 WV (J)

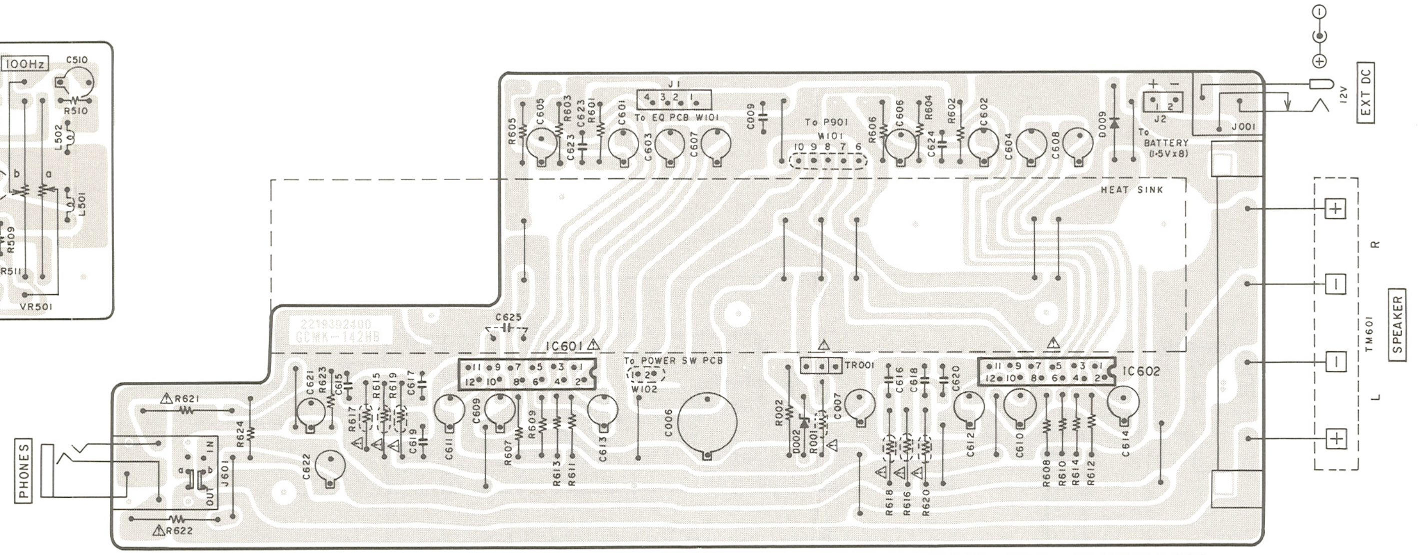
WARNING ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AVERTISSEMENT ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITE. POUR MAINTENIR LE DEGRÉ DE SÉCURITE DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

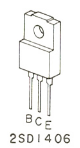
PJ-41FS/FU
POWER/AMP
SCHEMATIC DIAGRAM
NO. 3-1 841212A
4C


TO AF PCB J2
W103
EQUALIZER MODE
REC
PLAY
SW501-2
SW501-1
W102
TO AF PCB J1
VOLUME
VR507
VR507-a
VR507-b
R523
TO MAIN PCB J1
W101
BALANCE
10KHz
3.5KHz
1KHz
350Hz
100Hz
TR502
TR501
VR506
VR505
VR504
VR503
VR502
VR501
A:R508 D:R507
B:R506 E:R505
C:R502 F:R501
ON
OFF
E C B
2SC2240
B
= NPN TRANSISTOR
TR501,502----2SC2240(BL)

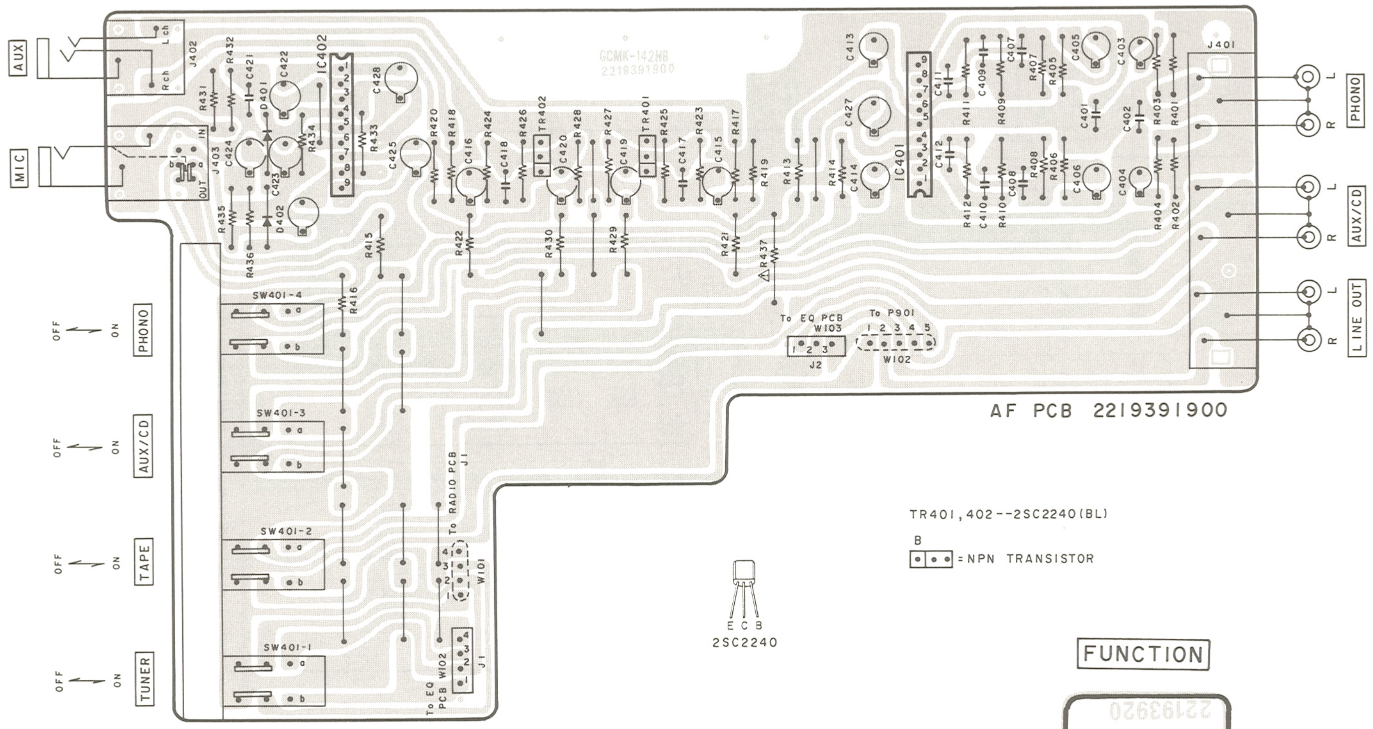
EQUALIZER PCB


EXT DC
12V
J001
J2
To BATTERY (1.5V×8)
J1
To EQ PCB W101
To P901
W101
HEAT SINK
IC601
IC602
To POWER SW PCB
W102
TR001
PHONES
J601
SPEAKER
TM601
R
L

MAIN PCB 2219392400


B C E
2SD1406

B
[•••] = NPN TRANSISTOR   TR001--2SD1406(Y)


AUX
MIC
J402
J403
IC402
IC401
TR402
TR401
J401
PHONO
AUX/CD
LINE OUT
L
R
SW401-4
SW401-3
SW401-2
SW401-1
PHONO
AUX/CD
TAPE
TUNER
OFF
ON
To EQ PCB W103
To P901
W102
J2
To RADIO PCB J1
W101
To EQ PCB W102
J1

AF PCB 2219391900

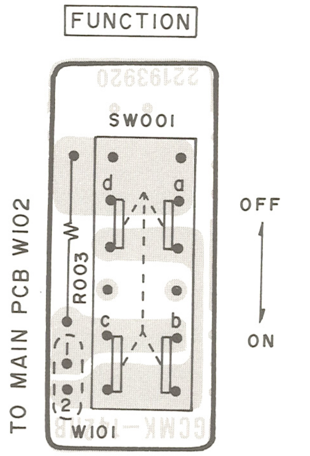
TR401,402--2SC2240(BL)

B
[•••] = NPN TRANSISTOR

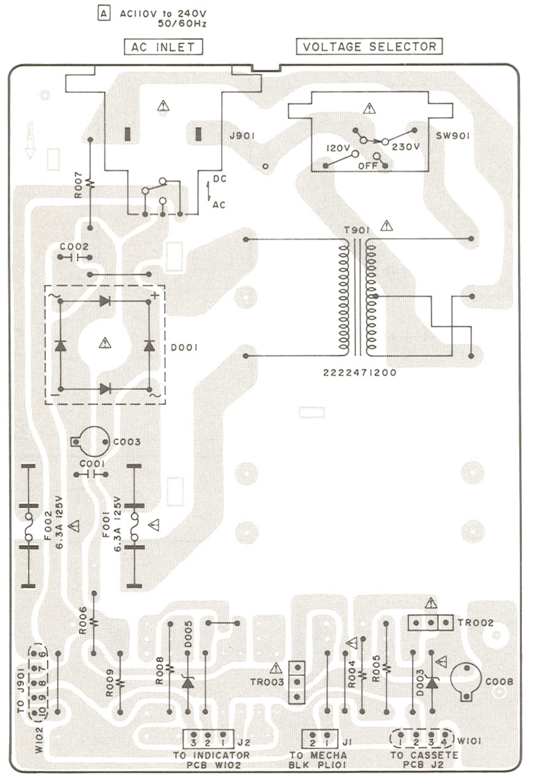
E C B
2SC2240

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

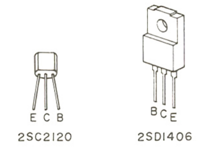
AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT


FUNCTION
SW001
TO MAIN PCB W102
R003
W101
OFF
ON
d
a
c
b

POWER SW PCB
2219392000

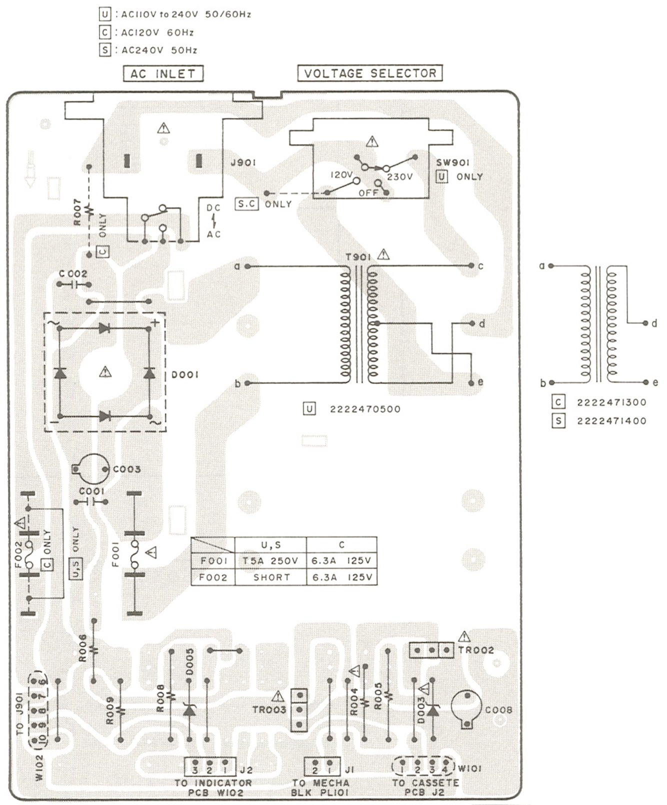

A AC110V to 240V 50/60Hz
AC INLET
VOLTAGE SELECTOR
J901
SW901
120V
230V
OFF
DC
AC
T901
2222471200
D001
C002
C003
C001
F002 6.3A 125V
F001 6.3A 125V
TR002
TR003
To J901
W102
J2 To INDICATOR PCB W102
J1 To MECHA BLK PL101
W101 To CASSETE PCB J2

POWER SUPPLY PCB 2219392300 A


E C B
2SC2120
B C E
2SD1406

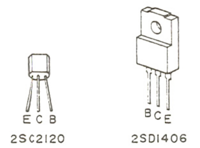
TR002 --- 2SD1406(Y)
TR003 --- 2SC2120(Y)

B
[•••] = NPN TRANSISTOR


U : AC110V to 240V 50/60Hz
C : AC120V 60Hz
S : AC240V 50Hz
AC INLET
VOLTAGE SELECTOR
J901
SW901 U ONLY
120V
230V
OFF
S.C ONLY
DC
AC
T901
U 2222470500
C 2222471300
S 2222471400
D001
C002
C003
C001
TR002
TR003
To J901
W102
J2 To INDICATOR PCB W102
J1 To MECHA BLK PL101
W101 To CASSETE PCB J2

	U,S	C
F001	T5A 250V	6.3A 125V
F002	SHORT	6.3A 125V

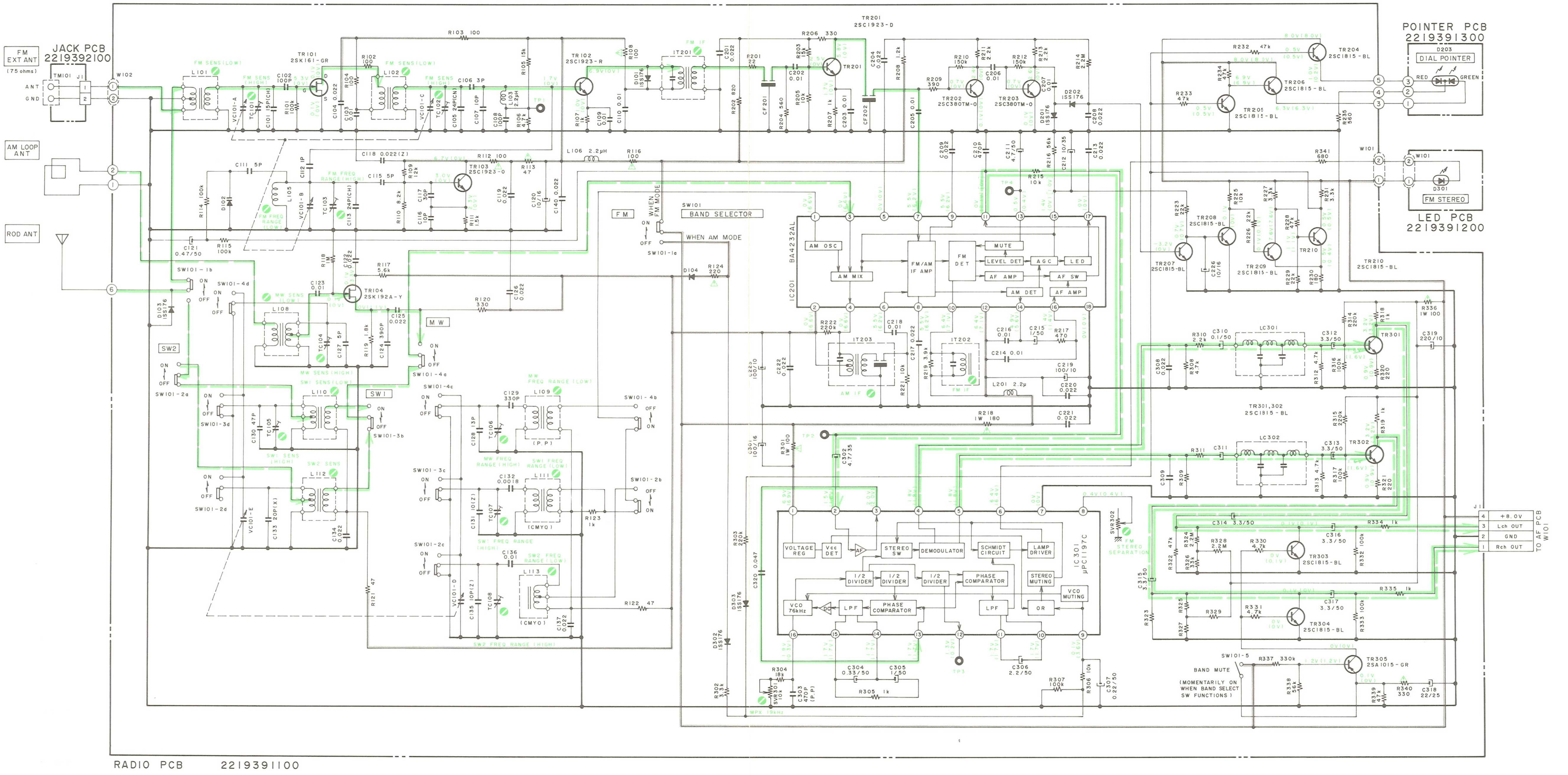
POWER SUPPLY PCB 2219392300 U.C.S


E C B
2SC2120
B C E
2SD1406

TR002 --- 2SD1406(Y)
TR003 --- 2SC2120(Y)

B
[•••] = NPN TRANSISTOR

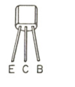
PJ-41


FM EXT ANT
(75 ohms)
JACK PCB 2219392100
TM101 J1
ANT
GND
AM LOOP ANT
ROD ANT
W102
TR101 2SK161-GR
TR102 2SC1923-R
TR103 2SC1923-O
TR104 2SK192A-Y
IT201
FM IF
TR201 2SC1923-O
TR202 2SC380TM-O
TR203 2SC380TM-O
FM SENS (LOW)
FM SENS (HIGH)
FM FREQ RANGE (HIGH)
FM FREQ RANGE (LOW)
MW SENS (LOW)
MW SENS (HIGH)
SW1 SENS (LOW)
SW1 SENS (HIGH)
SW2 SENS
MW FREQ RANGE (LOW)
MW FREQ RANGE (HIGH)
SW1 FREQ RANGE (LOW)
SW1 FREQ RANGE (HIGH)
SW2 FREQ RANGE (LOW)
SW2 FREQ RANGE (HIGH)
SW101 BAND SELECTOR
WHEN FM MODE
WHEN AM MODE
FM
MW
SW1
SW2
IC201 BA4232AL
AM OSC
AM MIX
FM/AM IF AMP
FM DET
MUTE
LEVEL DET
AGC
LED
AF AMP
AF SW
AM DET
AF AMP
IT203
AM IF
IT202
FM IF
TP1
TP2
TP3
TP4
IC301 μPC1197C
VOLTAGE REG
Vcc DET
AF
STEREO SW
DEMODULATOR
SCHMIDT CIRCUIT
LAMP DRIVER
1/2 DIVIDER
1/2 DIVIDER
1/2 DIVIDER
PHASE COMPARATOR
STEREO MUTING
VCO MUTING
VCO 76kHz
LPF
PHASE COMPARATOR
LPF
OR
SVR301 MPX 19kHz
SVR302 FM STEREO SEPARATION
LC301
LC302
TR301,302 2SC1815-BL
TR303 2SC1815-BL
TR304 2SC1815-BL
TR305 2SA1015-GR
SW101-5
BAND MUTE
(MOMENTARILY ON WHEN BAND SELECT SW FUNCTIONS)
POINTER PCB 2219391300
D203
DIAL POINTER
RED
GREEN
TR204 2SC1815-BL
TR205 2SC1815-BL
TR206 2SC1815-BL
TR207 2SC1815-BL
TR208 2SC1815-BL
TR209 2SC1815-BL
TR210 2SC1815-BL
W101
LED PCB 2219391200
D301
FM STEREO
J1
+8.0V
Lch OUT
GND
Rch OUT
TO AF PCB W101
RADIO PCB 2219391100

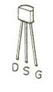
▨ +B (POWER SUPPLY) LINE

🟩 FM SIGNAL LINE

🟩 — — AM (MW, SW1, SW2) SIGNAL LINE



2SA1015
2SC380TM
2SC1815
2SC1923



2SK161
2SK192M

VOLTAGES ARE INDICATED AT FM MODE (TUNED),
INDICATED IN ( ) AT MW MODE (TUNED) AND
INDICATED IN [ ] AT SW MODE (TUNED).

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

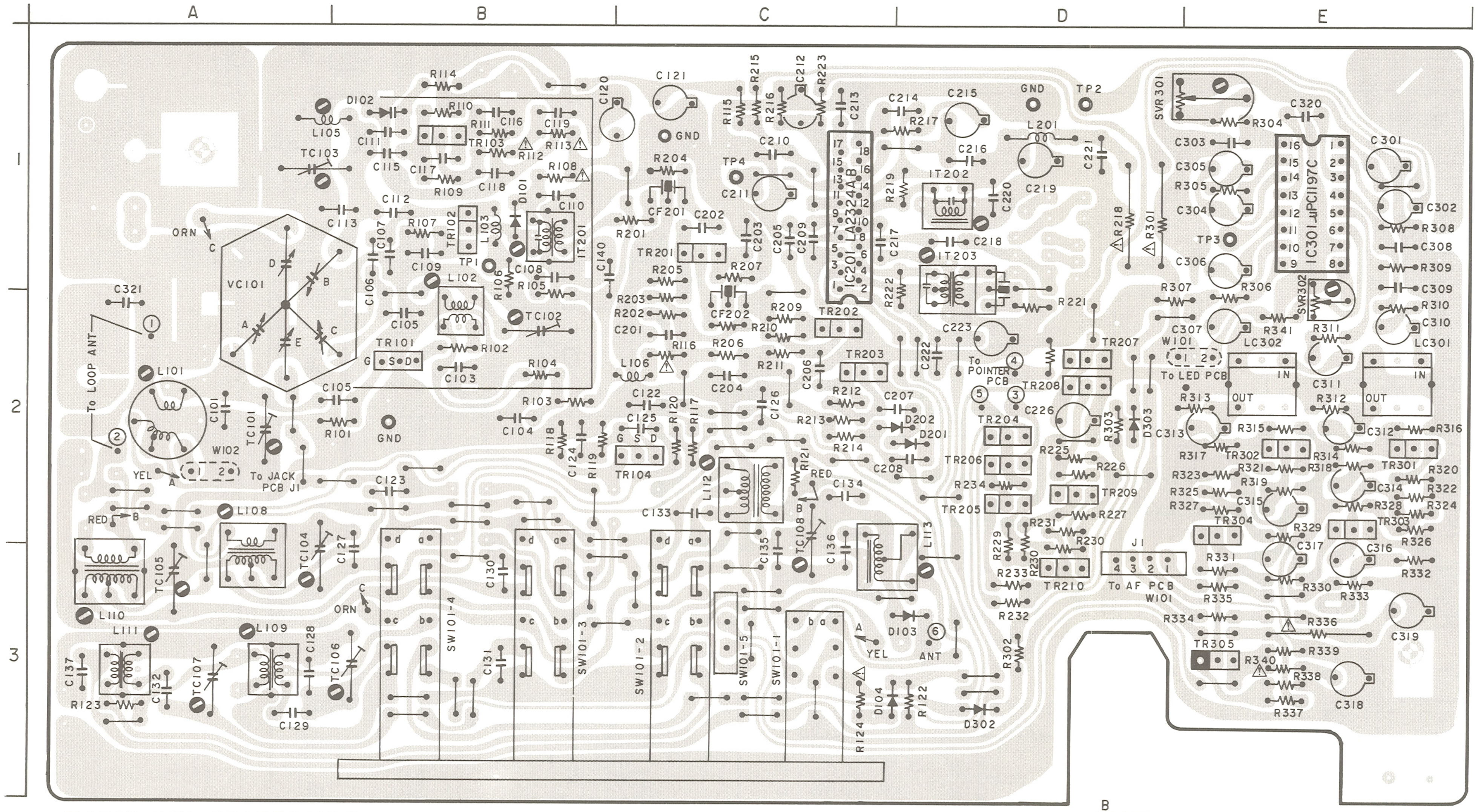
AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN μF 50 WV (J)

PJ-41 FS/FU RADIO SCHEMATIC DIAGRAM

NO. 3-2 841213A

4C


A
B
C
D
E
1
2
3
IC201 LA3224AB
IC301 μPC1197C
VC101
To LOOP ANT
To JACK PCB J1
To POINTER PCB
To LED PCB
To AF PCB W101
ANT
GND
TP1
TP2
TP3
TP4
SW101-1
SW101-2
SW101-3
SW101-4
SW101-5
SVR301
SVR302
ORN
YEL
RED

RADIO PCB 2219391100

MW
SW1
SW2
FM
ON
OFF

B

■ • • = PNP TRANSISTOR

B

• • • = NPN TRANSISTOR

LOCATION OF COMPONENTS

IC's

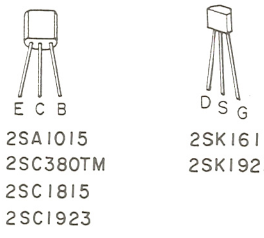
IC201---------C1
IC301---------E1

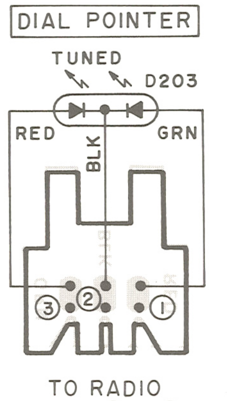
TR's

TR101---------B2
TR102,103------B1
TR104---------C2
TR201---------C1
TR202,203 -----C2
TR204 to 209---D2
TR210 ---------D3
TR301 to 304---E2
TR305---------E3

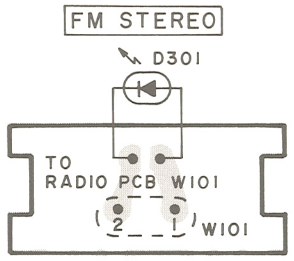
TERMINALS

J1 -----------D3
W101----------E2
W102----------A2
①,②--------A2
③,④,⑤-----D2
⑥ ----------D3


E C B
2SA1015
2SC380TM
2SC1815
2SC1923
D S G
2SK161
2SK192A


DIAL POINTER
TUNED
D203
RED
BLK
GRN
③
②
①
TO RADIO PCB ③ to ⑤

POINTER PCB
2219391300


FM STEREO
D301
TO RADIO PCB W101
1
2
W101

LED PCB
2219391200

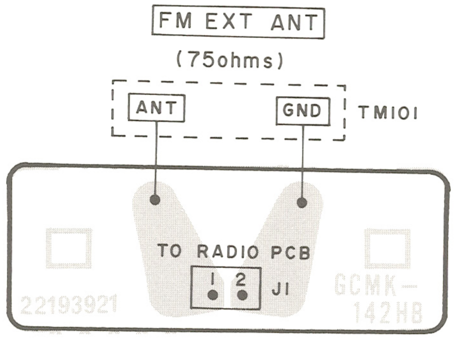
TR101-------2SK161(GR)
TR102 ------2SC1923(R)
TR103 ------2SC1923(O)
TR104 ------2SK192A(Y)
TR201------2SC1923(O)

TR202,203-----2SC380TM(O)
TR204 to 210---2SC1815(BL)
TR301 to 304---2SC1815(BL)
TR305------- -2SA1015(GR)

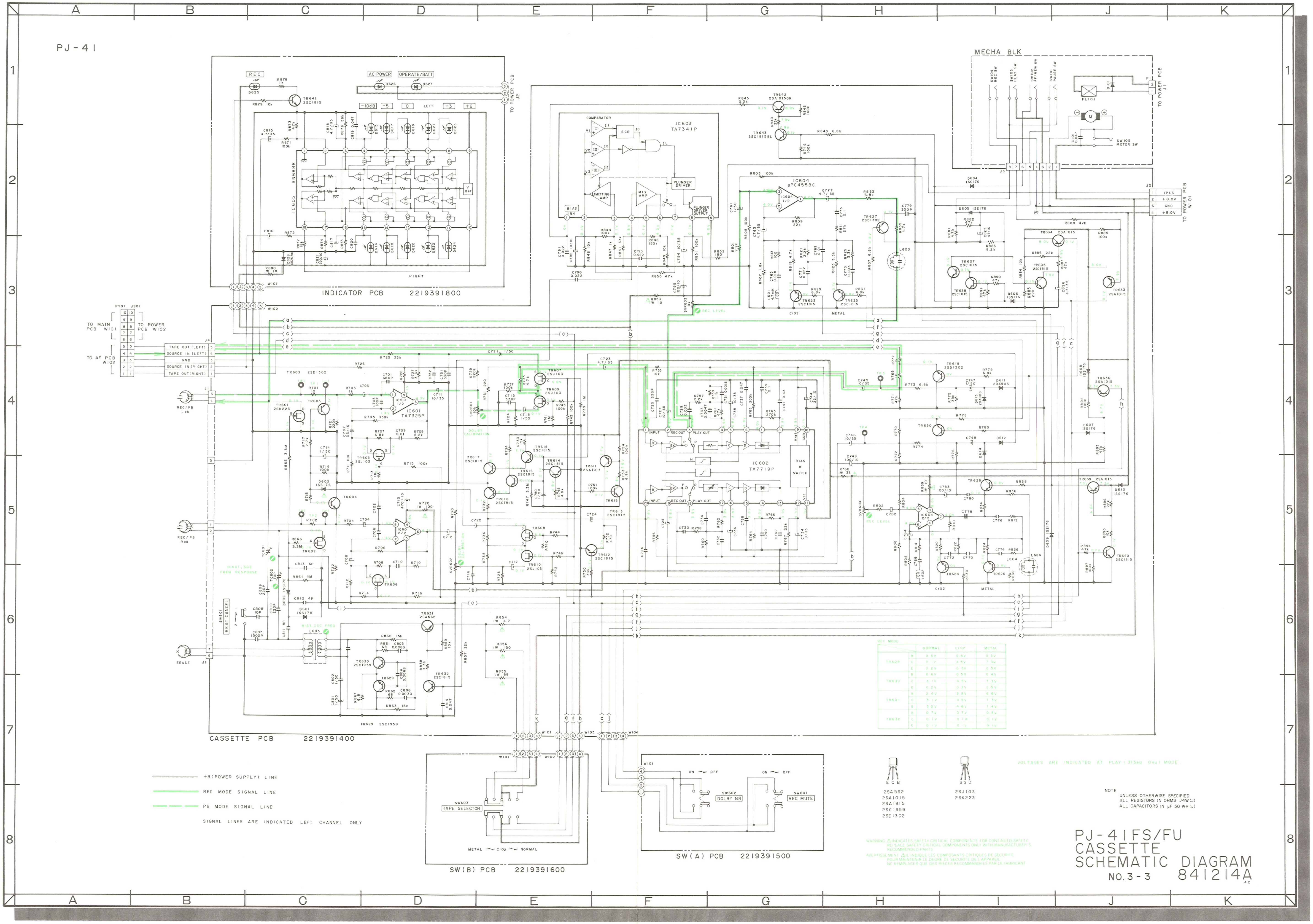
Point	Adjustment Item	Point	Adjustment Item
IT201	FM IF	L113	SW2 FREQ RANGE (LOW)
IT202		TC101	FM SENS (HIGH)
IT203	AM IF	TC102	
L101	FM SENS (LOW)	TC103	FM FREQ RANGE (HIGH)
L102		TC104	MW SENS (HIGH)
L105	FM FREQ RANGE (LOW)	TC105	SW1 SENS (HIGH)
L108	MW SENS (LOW)	TC106	MW FREQ RANGE (HIGH)
L109	MW FREQ RANGE (LOW)	TC107	SW1 FREQ RANGE (HIGH)
L110	SW1 SENS (LOW)	TC108	SW2 FREQ RANGE (HIGH)
L111	SW1 FREQ RANGE (LOW)	SVR301	MPX 19KHz
L112	SW2 SENS	SVR302	FM STEREO SEPARATION

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT


FM EXT ANT
(75ohms)
ANT
GND
TM101
TO RADIO PCB
1
2
J1
22193921
GCMK-142HB

JACK PCB
2219392100


PJ-41
INDICATOR PCB 2219391800
IC605 AN6888
REC
AC POWER
OPERATE/BATT
-10dB
-5
0
LEFT
+3
+6
RIGHT
TO POWER PCB J2
IC603 TA7341P
COMPARATOR
LIMITING AMP
MIX AMP
PLUNGER DRIVER
PLUNGER DRIVER OUTPUT
BIAS INH
IC604 μPC4558C
MECHA BLK
SW104 REC SW
SW103 PLAY SW
SW102 FF/REW SW
SW101 PAUSE SW
PL101
SW105 MOTOR SW
TO POWER PCB J1
TO POWER PCB W101
IPLS
+8.0V
GND
+8.0V
TO MAIN PCB W101
TO POWER PCB W102
TO AF PCB W102
TAPE OUT (LEFT)
SOURCE IN (LEFT)
GND
SOURCE IN (RIGHT)
TAPE OUT (RIGHT)
REC/PB Lch
REC/PB Rch
ERASE
IC601 TA7325P
IC602 TA7719P
INPUT
REC OUT
PLAY OUT
BIAS & SWITCH
REC LEVEL
DOLBY CALIBRATION
TC601, 602 FREQ. RESPONSE
BIAS OSC FREQ
SW801 BEAT CANCEL
CrO2
METAL
CASSETTE PCB 2219391400
SW(B) PCB 2219391600
SW603 TAPE SELECTOR
METAL — CrO2 — NORMAL
SW(A) PCB 2219391500
ON — OFF
SW602 DOLBY NR
SW601 REC MUTE

REC MODE

		NORMAL	CrO2	METAL
TR629	B	0.6V	0.6V	0.5V
	C	3.1V	4.5V	7.3V
	E	0.2V	0.3V	0.5V
TR630	B	0.6V	0.5V	0.4V
	C	3.1V	4.5V	7.3V
	E	0.2V	0.3V	0.5V
TR631	B	2.4V	3.9V	6.6V
	C	3.1V	4.5V	7.3V
	E	3.2V	4.6V	7.4V
TR632	B	0.7V	0.7V	0.8V
	C	0.1V	0.1V	0.1V
	E	0.1V	0.1V	0.1V

+B (POWER SUPPLY) LINE

REC MODE SIGNAL LINE

PB MODE SIGNAL LINE

SIGNAL LINES ARE INDICATED LEFT CHANNEL ONLY

E C B
2SA562
2SA1015
2SA1815
2SC1959
2SD1302

S G D
2SJ103
2SK223

VOLTAGES ARE INDICATED AT PLAY (315Hz 0Vu) MODE.

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μF 50 WV(J)

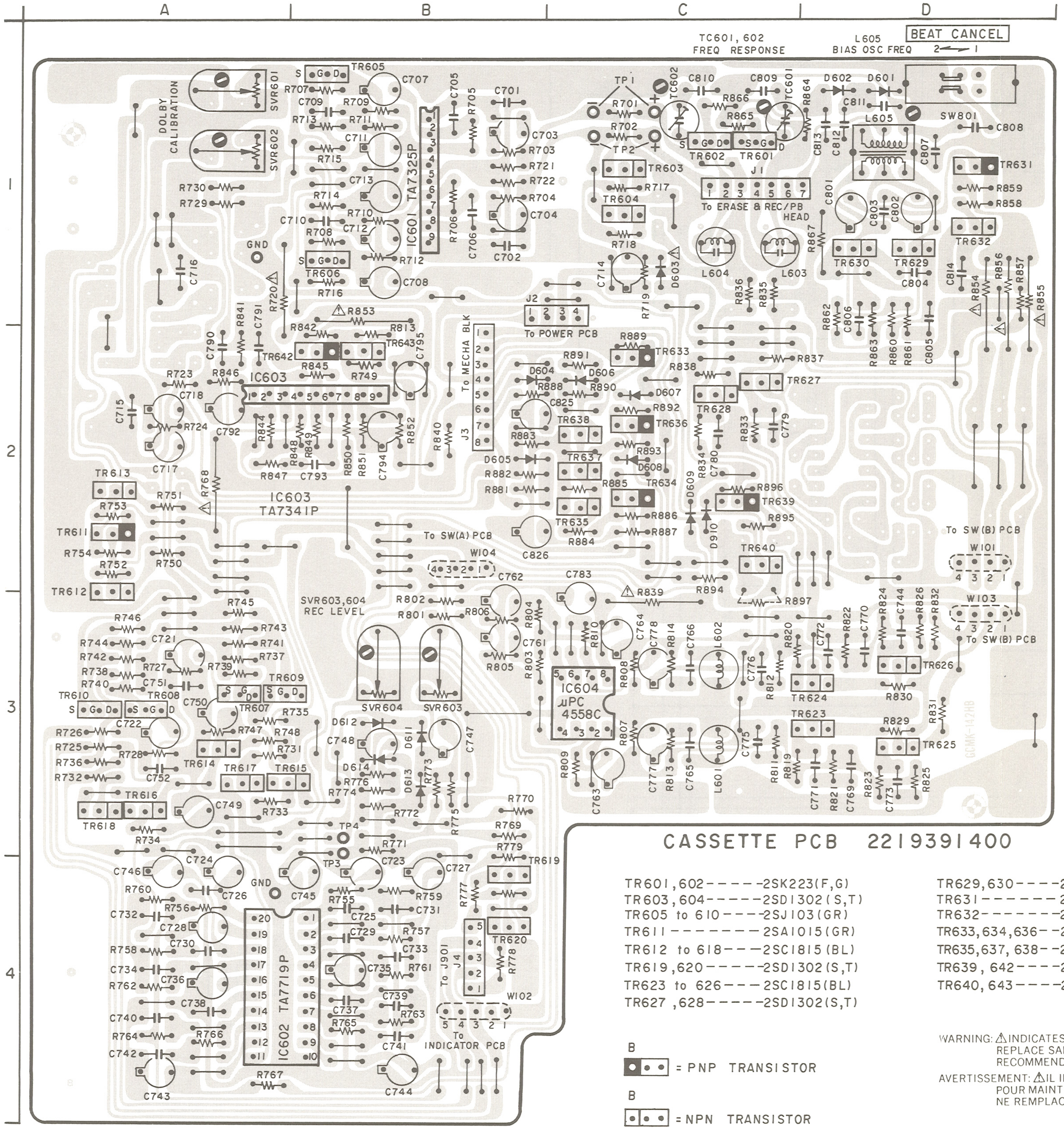
WARNING ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY.
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AVERTISSEMENT ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SECURITE.
POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL,
NE REMPLACER QUE DES PIECES RECOMMANDEES PAR LE FABRICANT.

PJ-41FS/FU CASSETTE SCHEMATIC DIAGRAM

NO.3-3 841214A

4C


A
B
C
D
1
2
3
4
TC601, 602 FREQ RESPONSE
L605 BIAS OSC FREQ
BEAT CANCEL 2 1
DOLBY CALIBRATION
SVR601
SVR602
IC601 TA7325P
TP1
TP2
J1
To ERASE & REC/PB HEAD
SW801
J2
To POWER PCB
J3
To MECHA BLK
IC603 TA7341P
To SW(A) PCB
W104
SVR603,604 REC LEVEL
To SW(B) PCB
W101
W103
IC604 µPC 4558C
SVR604
SVR603
TP3
TP4
GND
IC602 TA7719P
J4
To J901
W102
To INDICATOR PCB

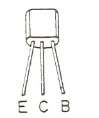
CASSETTE PCB 2219391400

TR601,602-----2SK223(F,G)
TR603,604-----2SD1302(S,T)
TR605 to 610----2SJ103(GR)
TR611--------2SA1015(GR)
TR612 to 618---2SC1815(BL)
TR619,620-----2SD1302(S,T)
TR623 to 626---2SC1815(BL)
TR627 ,628-----2SD1302(S,T)

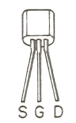
TR629,630----2SC1959(Y)
TR631-------2SA562(Y)
TR632--------2SC1815(BL)
TR633,634,636--2SA1015(GR)
TR635,637, 638--2SC1815(BL)
TR639, 642----2SA1015(GR)
TR640, 643----2SC1815(BL)

B
●•• = PNP TRANSISTOR

B
••• = NPN TRANSISTOR



2SA562
2SA1015
2SC1815
2SC1959
2SD1302



2SJ103
2SK223

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

LOCATION OF COMPONENTS

IC's

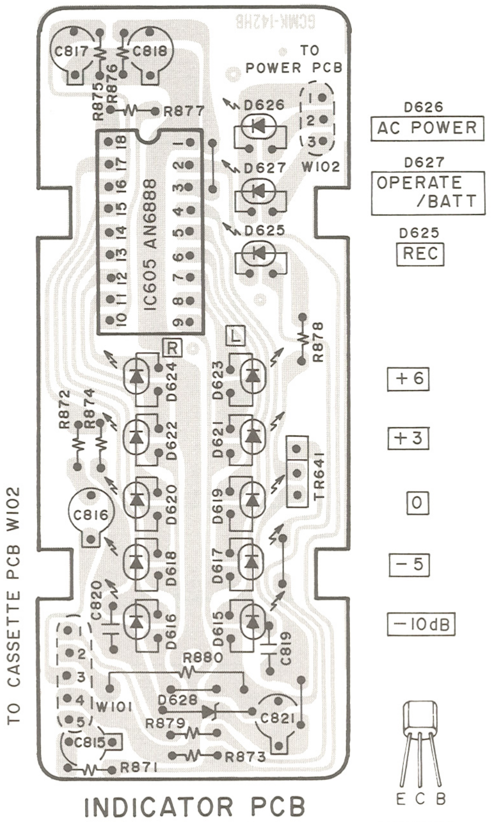
IC601-------B1
IC602--------A4,B4
IC603--------B2
IC604--------C3

TR's

TR601 to 604---C1
TR605,606----B1
TR607,608----A3
TR609--------B3
TR610--------A3
TR611 to 613---A2
TR614--------A3
TR615--------B3
TR616 to 618---A3
TR619 ,620----B4
TR623 to 626---D3
TR627, 628----C2
TR629 to 632---D1
TR633 to 640---C2
TR642 ,643----B2

TERMINALS

J1,2--------C1
J3----------B2
J4-----------B4
W101--------D2
W102--------B4
W103--------D3
W104--------B2


TO POWER PCB
D626
AC POWER
W102
D627
OPERATE /BATT
D625
REC
IC605 AN6888
R
L
+6
+3
0
−5
−10dB
TO CASSETTE PCB W102
W101

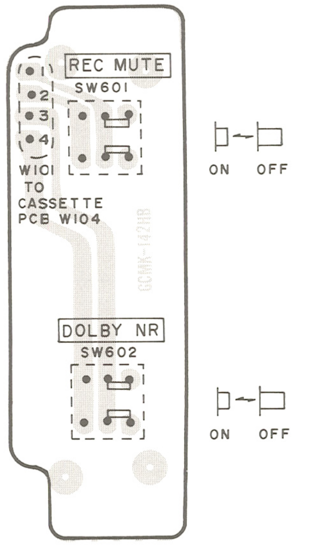
INDICATOR PCB
2219391800

E C B

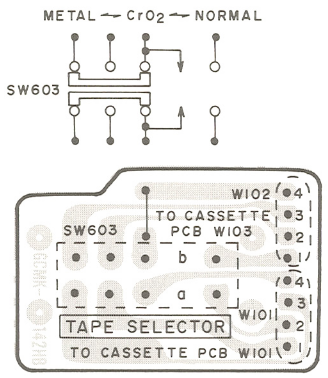
2SC1815

TR641----2SC1815(BL)

••• = NPN TRNSISTOR
B

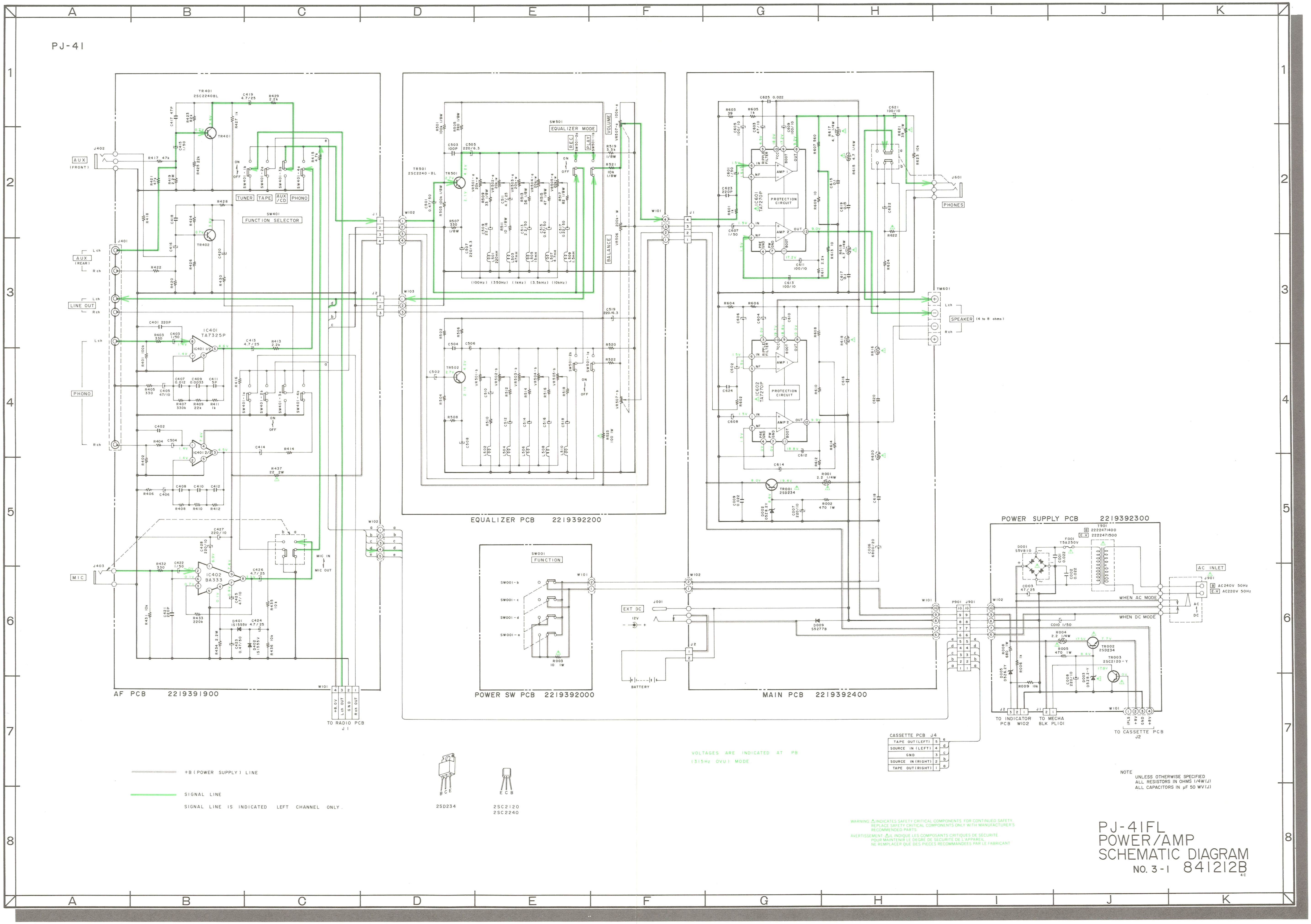

REC MUTE
SW601
W101
TO CASSETTE PCB W104
ON
OFF
DOLBY NR
SW602
ON
OFF

SW(A) PCB
2219391500


METAL — CrO2 — NORMAL
SW603
W102
TO CASSETTE PCB W103
SW603
b
a
W101
TAPE SELECTOR
TO CASSETTE PCB W101

SW(B) PCB
2219391600

PJ-41


AF PCB 2219391900
EQUALIZER PCB 2219392200
MAIN PCB 2219392400
POWER SW PCB 2219392000
POWER SUPPLY PCB 2219392300
AUX (FRONT)
J402
AUX (REAR)
J401
LINE OUT
PHONO
MIC
J403
Lch
Rch
TR401 2SC2240BL
TR402
IC401 TA7325P
IC402 BA333
SW401 FUNCTION SELECTOR
TUNER
TAPE
AUX /CD
PHONO
MIC IN
MIC OUT
TR501 2SC2240-BL
TR502
SW501 EQUALIZER MODE
REC
PLAY
VOLUME
BALANCE
(100Hz) (350Hz) (1kHz) (3.5kHz) (10kHz)
IC601 TA7270P
IC602 TA7270P
RIPPLE FILTER
AMP 1
AMP 2
PROTECTION CIRCUIT
PRE GND
PW GND
BOOT
TR001 2SD234
J601
PHONES
TM601
SPEAKER (4 to 8 ohms)
SW001 FUNCTION
SW001-b
SW001-c
SW001-d
SW001-e
EXT DC
J001
12V
BATTERY
T901
B 222247I400
E.V 222247I500
F001 T5A250V
D001 S5VB10
AC INLET
J901
B AC240V 50Hz
E.V AC220V 50Hz
WHEN AC MODE
WHEN DC MODE
TR002 2SD234
TR003 2SC2120-Y
D009 S5277B
W101
W102
W103
P901
J1
J2
+8.0V
Lch OUT
GND
Rch OUT
TO RADIO PCB J1
TO INDICATOR PCB W102
TO MECHA BLK PL101
IPLS
+8V
GND
+8V
TO CASSETTE PCB J2
CASSETTE PCB J4
TAPE OUT (LEFT) 5
SOURCE IN (LEFT) 4
GND 3
SOURCE IN (RIGHT) 2
TAPE OUT (RIGHT) 1
+B (POWER SUPPLY) LINE
SIGNAL LINE
SIGNAL LINE IS INDICATED LEFT CHANNEL ONLY.
B C E
2SD234
E C B
2SC2120
2SC2240

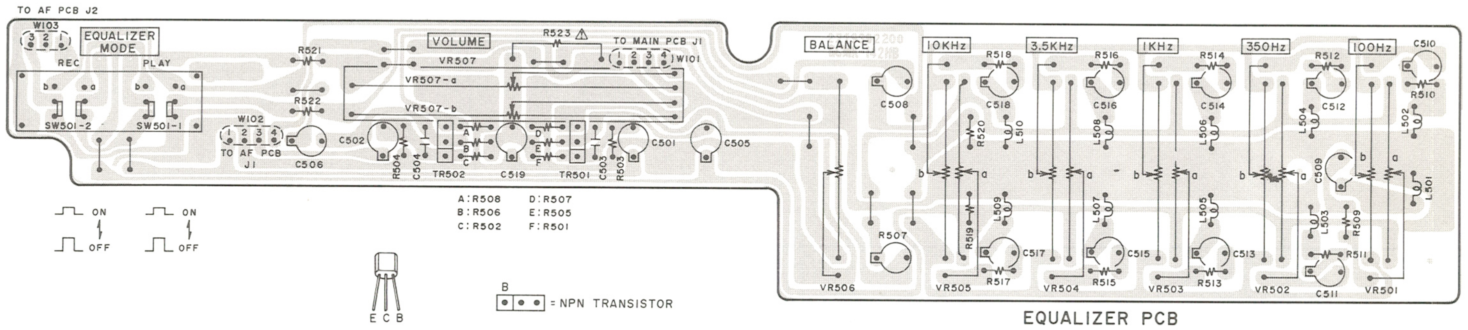
VOLTAGES ARE INDICATED AT PB (315Hz 0VU) MODE.

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN μF 50 WV (J)

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

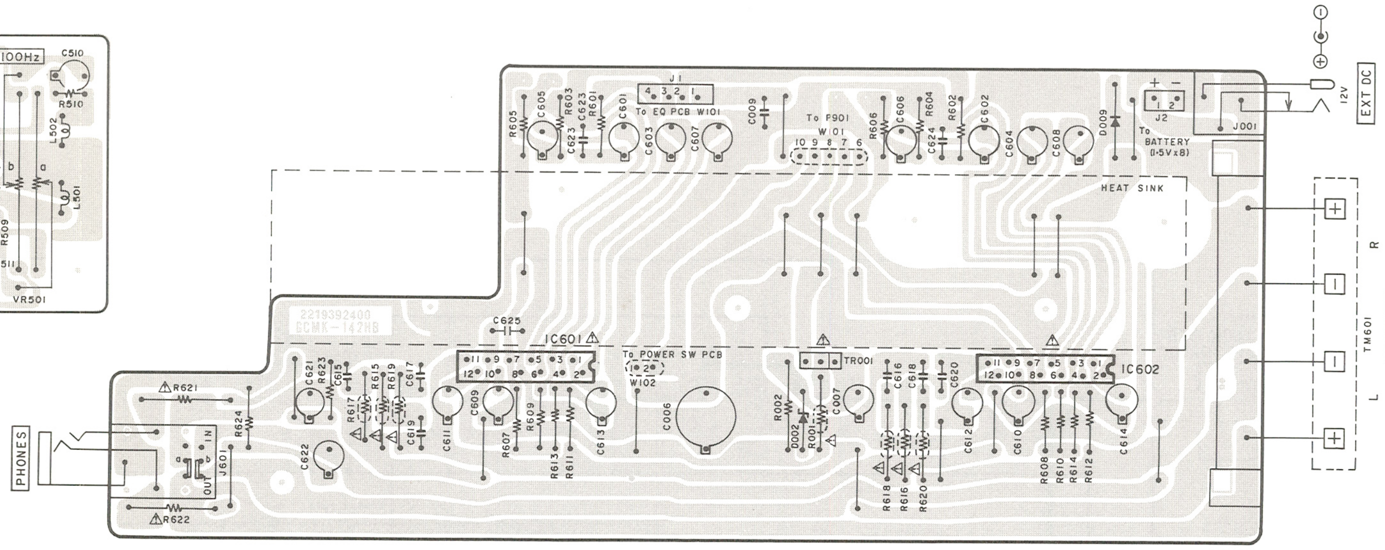
AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIECES RECOMMANDEES PAR LE FABRICANT

PJ-41FL
POWER/AMP
SCHEMATIC DIAGRAM
NO. 3-1 841212B
4C

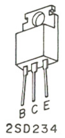

TO AF PCB J2
W103
EQUALIZER MODE
REC
PLAY
SW501-2
SW501-1
W102
TO AF PCB J1
VOLUME
VR507
VR507-a
VR507-b
R523
TO MAIN PCB J1
W101
BALANCE
10KHz
3.5KHz
1KHz
350Hz
100Hz
TR502
TR501
A:R508 D:R507
B:R506 E:R505
C:R502 F:R501
VR506
VR505
VR504
VR503
VR502
VR501
ON
OFF
E C B
2SC2240
B
= NPN TRANSISTOR

TR501,502----2SC2240(BL)

EQUALIZER PCB

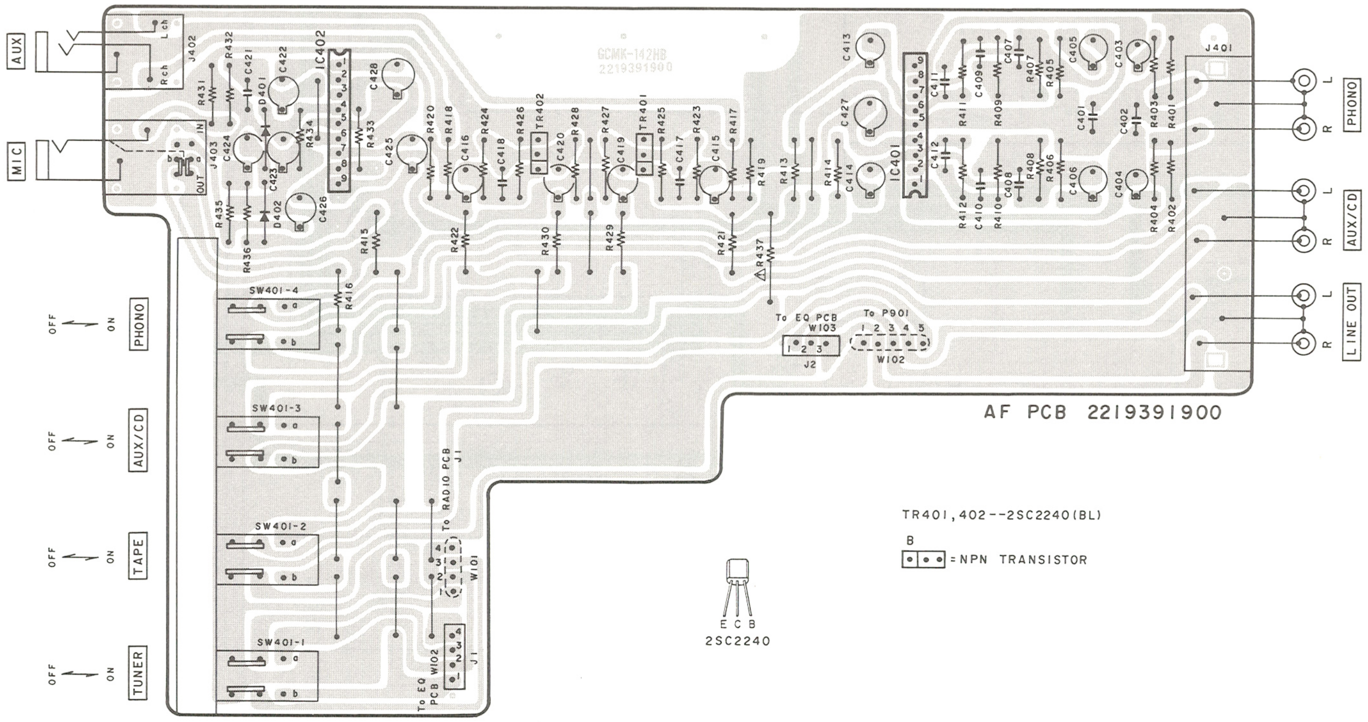

J1
TO EQ PCB W101
To F901
W101
EXT DC
12V
J001
J2
To BATTERY (1.5V×8)
HEAT SINK
IC601
IC602
To POWER SW PCB
W102
TR001
PHONES
J601
R621
R622
SPEAKER
TM601
R
L

MAIN PCB 2219392400



2SD234

B ▣ = NPN TRANSISTOR TR001--2SD234


AUX
MIC
J402
J403
IC402
IC401
TR401
TR402
J401
PHONO
AUX/CD
LINE OUT
L
R
To EQ PCB W103
J2
To P901
W102
SW401-4
SW401-3
SW401-2
SW401-1
OFF
ON
PHONO
AUX/CD
TAPE
TUNER
To RADIO PCB J1
W101
To EQ PCB W102
J1

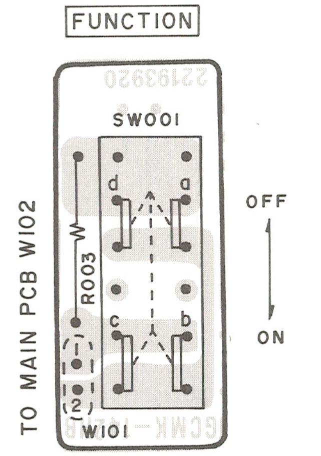
AF PCB 2219391900

TR401,402--2SC2240(BL)

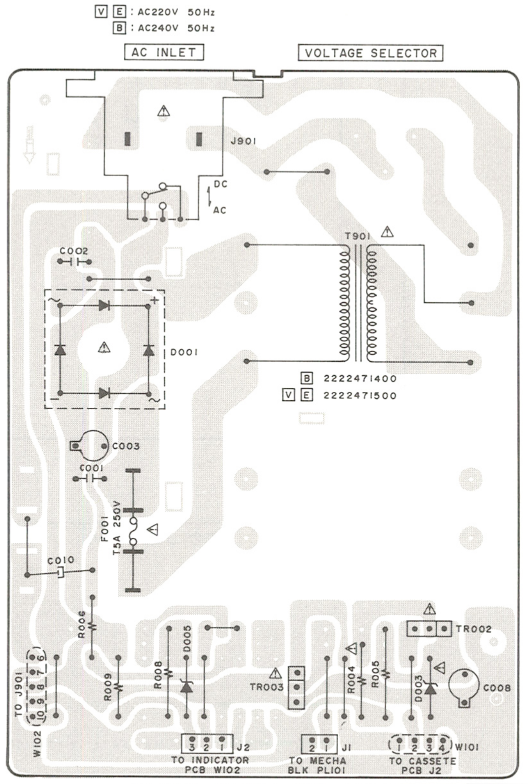
B ▣ = NPN TRANSISTOR

E C B

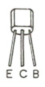
2SC2240


FUNCTION
SW001
TO MAIN PCB W102
R003
W101
OFF
ON
d
a
c
b

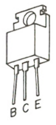
POWER SW PCB
2219392000


V E : AC220V 50Hz
B : AC240V 50Hz
AC INLET
VOLTAGE SELECTOR
J901
DC
AC
T901
C002
D001
B 2222471400
V E 2222471500
C003
C001
F001
C010
TR002
TR003
To J901
W102
TO INDICATOR PCB W102
J2
TO MECHA BLK PL101
J1
TO CASSETE PCB J2
W101

POWER SUPPLY PCB 2219392300 B,E,V



2SC2120



2SD234

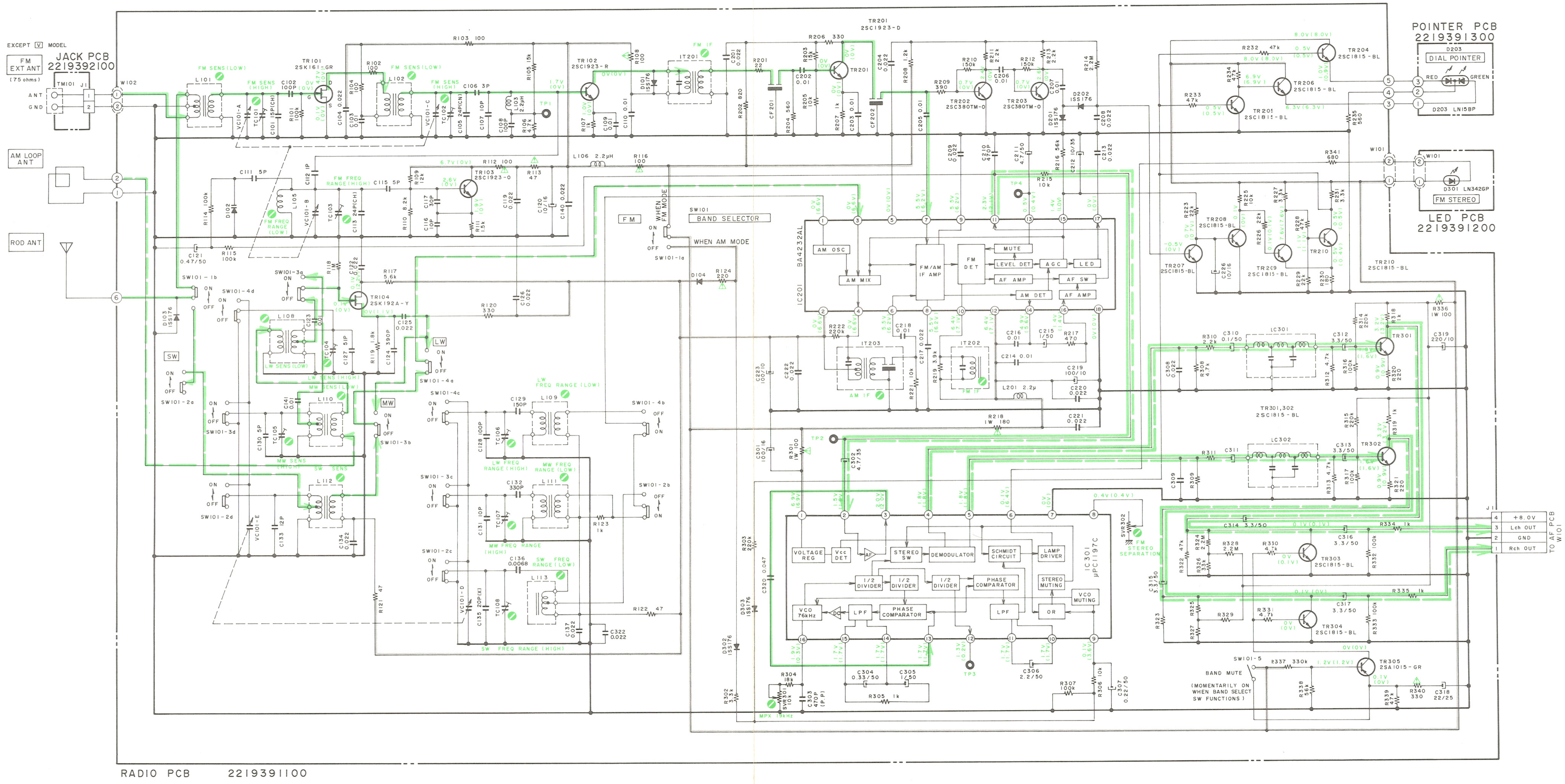
TR002 --- 2SD234
TR003 --- 2SC2120(Y)

B ▣ = NPN TRANSISTOR

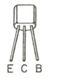
WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

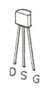
PJ-41


EXCEPT V MODEL
FM EXT ANT
JACK PCB 2219392100
(75 ohms)
ANT
GND
TM101
J1
W102
AM LOOP ANT
ROD ANT
TR101 2SK161-GR
TR102 2SC1923-R
TR103 2SC1923-O
TR104 2SK192A-Y
L101
L102
L103 2.2μH
L105
L106 2.2μH
L108
L109
L110
L111
L112
L113
VC101-A
VC101-B
VC101-C
VC101-D
VC101-E
FM SENS (LOW)
FM SENS (HIGH)
FM FREQ RANGE (HIGH)
FM FREQ RANGE (LOW)
LW SENS (LOW)
LW SENS (HIGH)
MW SENS (LOW)
MW SENS (HIGH)
SW SENS
LW FREQ RANGE (LOW)
LW FREQ RANGE (HIGH)
MW FREQ RANGE (LOW)
MW FREQ RANGE (HIGH)
SW FREQ RANGE (LOW)
SW FREQ RANGE (HIGH)
FM IF
TP1
TP2
TP3
TP4
SW101 BAND SELECTOR
WHEN FM MODE
WHEN AM MODE
FM
LW
MW
SW
IT201
IT202
IT203
AM IF
CF201
CF202
TR201 2SC1923-O
TR202 2SC380TM-O
TR203 2SC380TM-O
IC201 BA4232AL
AM OSC
AM MIX
FM/AM IF AMP
FM DET
MUTE
LEVEL DET
AGC
LED
AF AMP
AF SW
AM DET
IC301 μPC1197C
VOLTAGE REG
Vcc DET
STEREO SW
DEMODULATOR
SCHMIDT CIRCUIT
LAMP DRIVER
1/2 DIVIDER
PHASE COMPARATOR
STEREO MUTING
VCO 76kHz
LPF
VCO MUTING
OR
MPX VCO
FM STEREO SEPARATION
TR204 2SC1815-BL
TR205
TR206 2SC1815-BL
TR207 2SC1815-BL
TR208 2SC1815-BL
TR209 2SC1815-BL
TR210 2SC1815-BL
TR301, 302 2SC1815-BL
TR301
TR302
TR303 2SC1815-BL
TR304 2SC1815-BL
TR305 2SA1015-GR
LC301
LC302
SW101-5
BAND MUTE (MOMENTARILY ON WHEN BAND SELECT SW FUNCTIONS)
POINTER PCB 2219391300
D203
DIAL POINTER
RED
GREEN
D203 LN158P
W101
D301 LN342GP
FM STEREO
LED PCB 2219391200
J1
+8.0V
Lch OUT
GND
Rch OUT
TO AF PCB W101
RADIO PCB 2219391100

▬	+B (POWER SUPPLY) LINE
🟩	FM SIGNAL LINE
▬ ▬ ▬	AM (MW, SW1, SW2) SIGNAL LINE



2SA1015
2SC380TM
2SC1815
2SC1923



2SK161
2SK192M

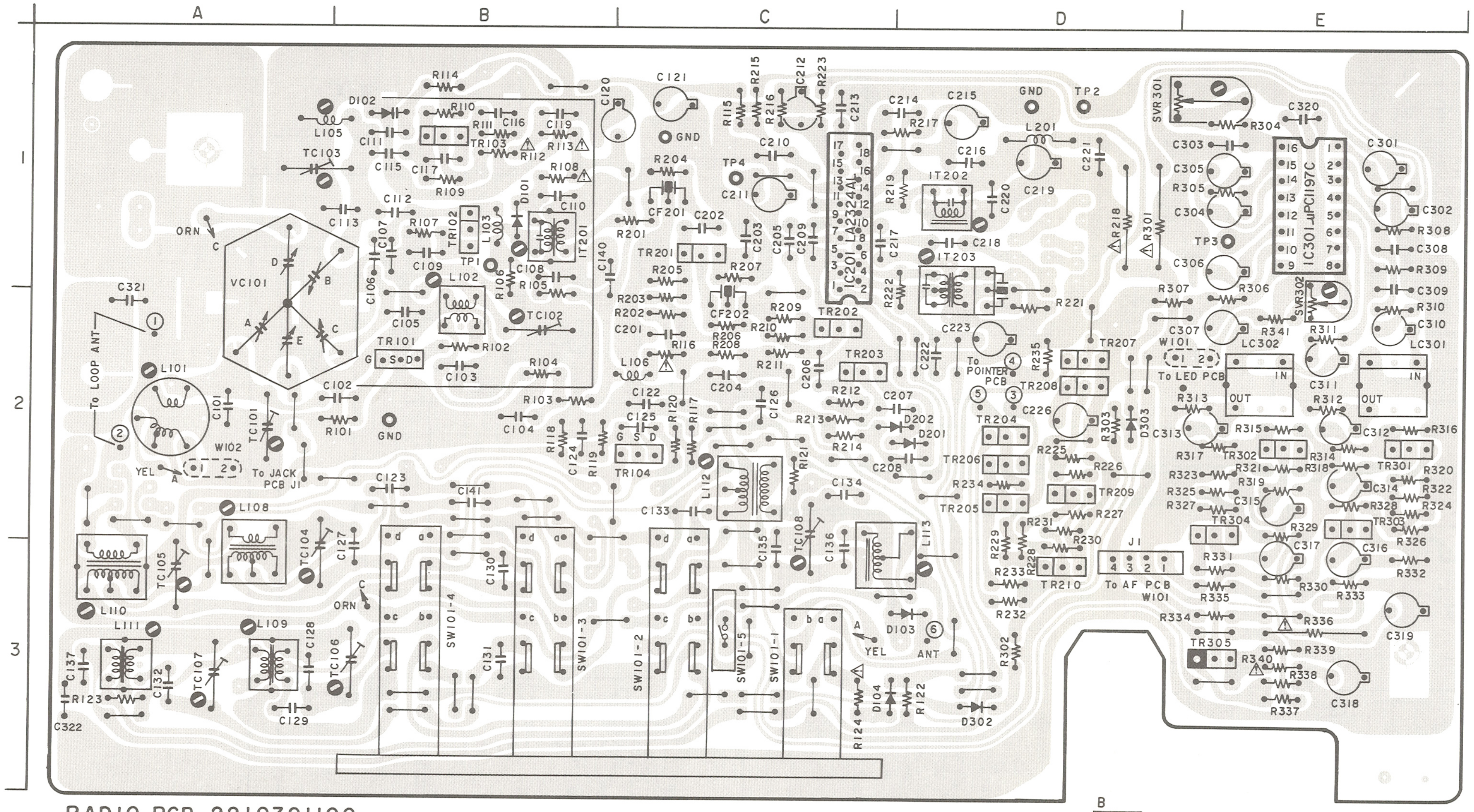
VOLTAGES ARE INDICATED AT FM MODE (TUNED),
INDICATED IN ( ) AT MW MODE (TUNED)

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY,
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN μF 50 WV (J)

PJ-41FL RADIO
SCHEMATIC DIAGRAM
NO. 3-2 841213B


A
B
C
D
E
1
2
3
IC201
IC301 µPC1197C
VC101
SW101-1
SW101-2
SW101-3
SW101-4
SW101-5
To LOOP ANT
To JACK PCB J1
To POINTER PCB
To LED PCB W101
To AF PCB W101
SVR301
SVR302
LC301
LC302
TP1
TP2
TP3
TP4
GND
ANT
ORN
YEL
J1
W101
W102

RADIO PCB 2219391100

LW
MW
SW
FM
ON
OFF

LOCATION OF COMPONENTS

IC's

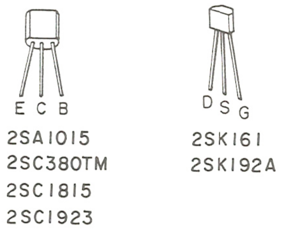
IC201--------C1
IC301--------E1

TR's

TR101--------B2
TR102,103-----B1
TR104---------C2
TR201--------C1
TR202,203-----C2
TR204 to 209---D2
TR210--------D3
TR301 to 304---E2
TR305--------E3

TERMINALS

J1---------D3
W101--------E2
W102--------A2
①,②-------A2
③,④,⑤----D2
⑥---------D3



2SA1015
2SC380TM
2SC1815
2SC1923

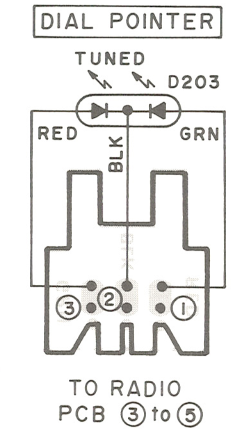
2SK161
2SK192A

B ▣•• = PNP TRANSISTOR

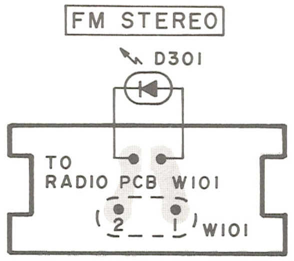
B •|•• = NPN TRANSISTOR

TR101-------2SK161(GR)
TR102------2SC1923(R)
TR103------2SC1923(0)
TR104------2SK192A(Y)
TR201------2SC1923(0)

TR202,203-----2SC380TM(0)
TR204 to 210---2SC1815(BL)
TR301 to 304---2SC1815(BL)
TR305-------2SA1015(GR)


DIAL POINTER
TUNED
D203
RED
BLK
GRN
③
②
①
TO RADIO PCB ③ to ⑤

POINTER PCB 2219391300

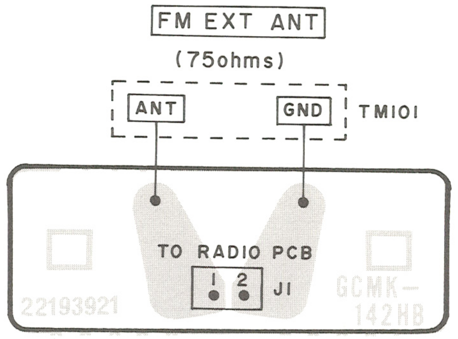

FM STEREO
D301
TO RADIO PCB W101
2
1
W101

LED PCB 2219391200

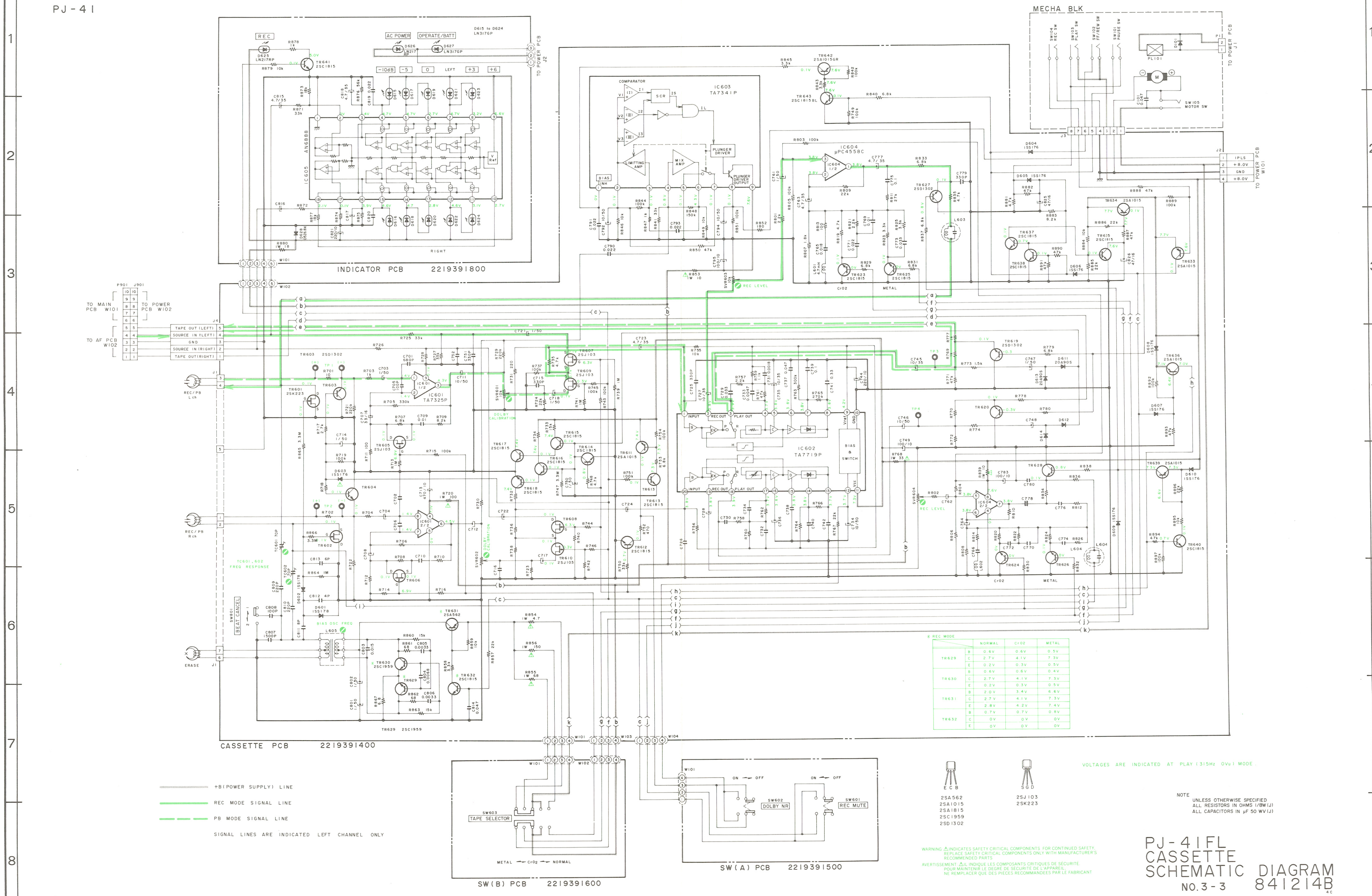
Point	Adjustment Item	Point	Adjustment Item
IT201	FM IF	L113	SW FREQ RANGE (LOW)
IT202		TC101	FM SENS (HIGH)
IT203	AM IF	TC102	
L101	FM SENS (LOW)	TC103	FM FREQ RANGE (HIGH)
L102		TC104	LW SENS (HIGH)
L105	FM FREQ RANGE (LOW)	TC105	MW SENS (HIGH)
L108	LW SENS (LOW)	TC106	LW FREQ RANGE (HIGH)
L109	LW FREQ RANGE (LOW)	TC107	MW FREQ RANGE (HIGH)
L110	MW SENS (LOW)	TC108	SW FREQ RANGE (HIGH)
L111	MW FREQ RANGE (LOW)	SVR301	MPX 19KHz
L112	SW SENS	SVR302	FM STEREO SEPARATION

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT


FM EXT ANT
(75ohms)
ANT
GND
TM101
TO RADIO PCB
1 2
J1
22193921
GCMK-142HB

JACK PCB 2219392100 EXCEPT V


PJ-41
INDICATOR PCB 2219391800
IC605 AN6888
REC
AC POWER
OPERATE/BATT
D615 to D624 LN317GP
-10dB
-5
0
+3
+6
LEFT
RIGHT
TO POWER PCB J2
COMPARATOR
IC603 TA7341P
SCR
LIMITING AMP
MIX AMP
PLUNGER DRIVER
PLUNGER DRIVER OUTPUT
BIAS INH
IC604 µPC4558C
MECHA BLK
SW104 REC SW
SW103 PLAY SW
SW102 FF/REW SW
SW101 PAUSE SW
PL101
SW105 MOTOR SW
TO POWER PCB J1
IPLS
+8.0V
GND
+8.0V
TO POWER PCB W101
TO MAIN PCB W101
TO POWER PCB W102
TO AF PCB W102
TAPE OUT (LEFT)
SOURCE IN (LEFT)
GND
SOURCE IN (RIGHT)
TAPE OUT (RIGHT)
REC/PB Lch
REC/PB Rch
ERASE
IC601 TA7325P
IC602 TA7719P
INPUT
REC OUT
PLAY OUT
BIAS & SWITCH
DOLBY CALIBRATION
REC LEVEL
TC601,602 FREQ. RESPONSE
BIAS OSC FREQ
SW801 BEAT CANCEL
CrO2
METAL
CASSETTE PCB 2219391400
SW603 TAPE SELECTOR
METAL ← CrO2 → NORMAL
SW(B) PCB 2219391600
SW602 DOLBY NR
SW601 REC MUTE
ON ← → OFF
SW(A) PCB 2219391500

+B(POWER SUPPLY) LINE

REC MODE SIGNAL LINE

PB MODE SIGNAL LINE

SIGNAL LINES ARE INDICATED LEFT CHANNEL ONLY

※ REC MODE

		NORMAL	CrO2	METAL
TR629	B	0.6V	0.6V	0.5V
	C	2.7V	4.1V	7.3V
	E	0.2V	0.3V	0.5V
TR630	B	0.6V	0.6V	0.4V
	C	2.7V	4.1V	7.3V
	E	0.2V	0.3V	0.5V
TR631	B	2.0V	3.4V	6.6V
	C	2.7V	4.1V	7.3V
	E	2.8V	4.2V	7.4V
TR632	B	0.7V	0.7V	0.8V
	C	0V	0V	0V
	E	0V	0V	0V

E C B

2SA562
2SA1015
2SA1815
2SC1959
2SD1302

S G D

2SJ103
2SK223

VOLTAGES ARE INDICATED AT PLAY (315Hz 0Vu) MODE.

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/8W (J)
ALL CAPACITORS IN µF 50 WV (J)

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

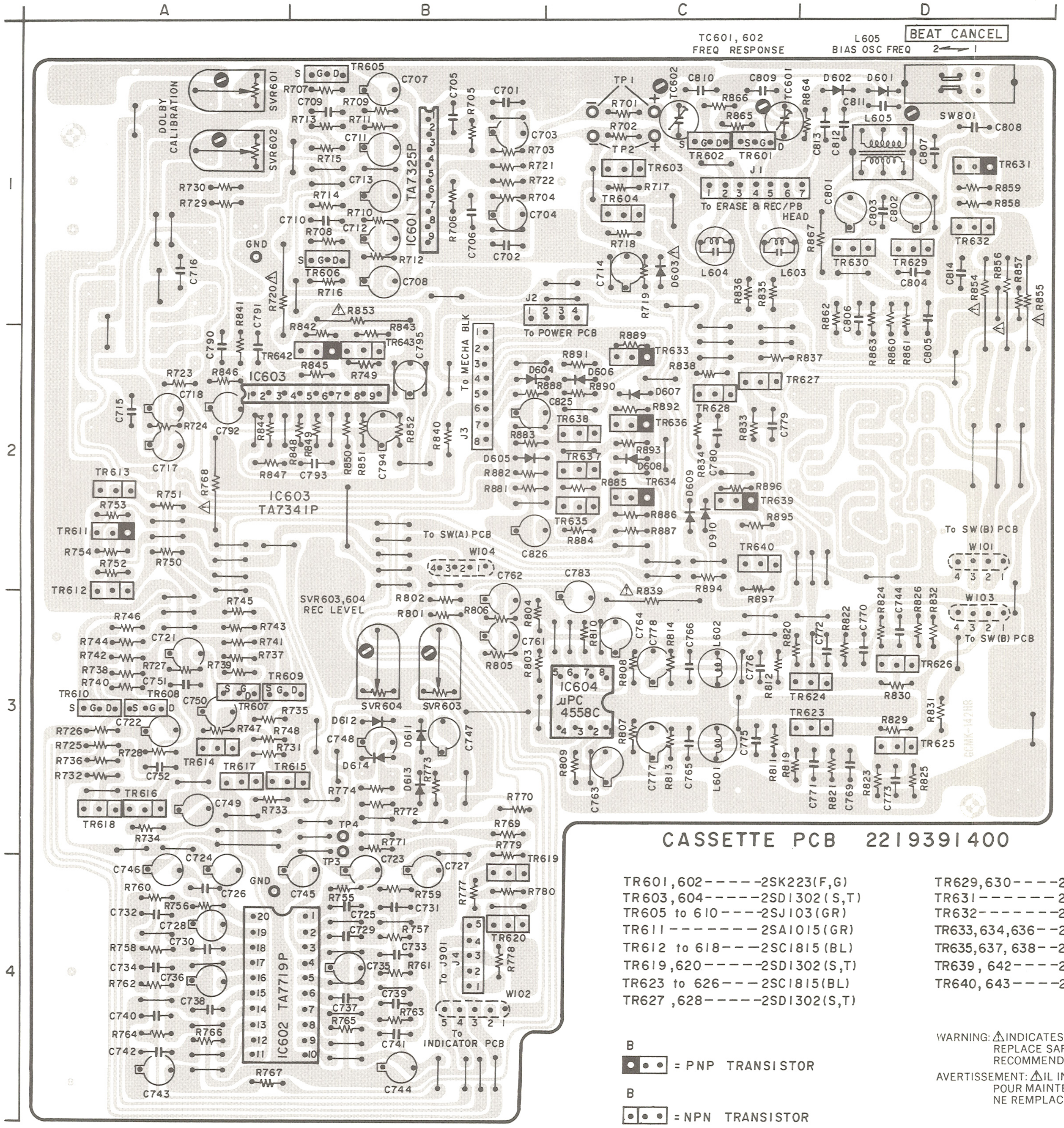
AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

PJ-41FL
CASSETTE
SCHEMATIC DIAGRAM

NO.3-3

841214B

4C


A
B
C
D
1
2
3
4
TC601, 602
FREQ RESPONSE
L605
BIAS OSC FREQ
BEAT CANCEL
2 1
DOLBY CALIBRATION
SVR601
SVR602
TR605
C707
C705
C701
TP1
TC602
C810
C809
TC601
D602
D601
SW801
C808
IC601 TA7325P
R701
R702
TP2
TR602
TR601
J1
1 2 3 4 5 6 7
To ERASE & REC/PB HEAD
TR603
TR604
R717
R718
L605
TR631
R859
R858
TR632
C801
C803
C802
L604
L603
TR630
TR629
C804
GND
TR606
C708
C714
D603
R719
J2
To POWER PCB
To MECHA BLK
J3
IC603
TR642
TR643
R853
R842
R843
R845
R749
R846
R723
C718
C715
R724
C792
C717
C793
IC603 TA7341P
TR613
TR611
TR612
R751
R753
R754
R752
R750
R768
TR633
R889
R891
D604
D606
R888
R890
D607
R892
C825
TR638
TR636
TR637
R893
D608
TR634
D605
R882
R881
R883
R885
R886
R887
TR635
R884
C826
To SW(A) PCB
W104
4 3 2 1
TR628
TR627
R838
R837
D609
D910
R896
TR639
R895
TR640
R894
R897
R839
To SW(B) PCB
W101
W103
4 3 2 1
SVR603,604
REC LEVEL
C762
C783
R802
R801
R806
R804
C761
R805
R803
IC604 μPC 4558C
R810
C764
R814
C766
L602
R820
C772
R822
C770
R824
C744
R826
R832
TR626
TR624
R830
TR623
R829
R831
TR625
L601
C775
C776
R812
R811
R819
C771
R821
C769
R823
C773
R825
R808
R807
R809
C763
C777
R813
C765
R746
R744
R742
R738
R740
R745
R743
R741
R737
R739
C721
R727
TR609
TR610
TR608
TR607
C751
C750
R735
C722
R747
R748
R731
R726
R725
R736
R732
R728
TR614
C752
TR617
TR615
TR616
TR618
C749
R733
R734
SVR604
SVR603
D612
C748
D611
D614
D613
R773
C747
R774
R772
R770
R769
R779
TR619
TP4
TP3
R771
C746
C724
GND
C745
C723
C727
R760
C726
R755
R759
R780
R777
C732
R756
C728
C725
C729
R757
TR620
R778
C730
C731
C733
R758
C734
C736
C735
R761
To J901
J4
R762
C738
C739
W102
C740
C737
R763
R764
R766
R765
C741
C742
R767
IC602 TA7719P
C743
C744
5 4 3 2 1
To INDICATOR PCB
GCMK-142HB

CASSETTE PCB 2219391400

LOCATION OF COMPONENTS

IC's

IC601--------B1
IC602---------A4,B4
IC603---------B2
IC604---------C3

TR's

TR601 to 604---C1
TR605,606-----B1
TR607,608-----A3
TR609---------B3
TR610---------A3
TR611 to 613---A2
TR614---------A3
TR615---------B3
TR616 to 618---A3
TR619,620-----B4
TR623 to 626---D3
TR627,628-----C2
TR629 to 632---D1
TR633 to 640---C2
TR642,643-----B2

TERMINALS

J1,2---------C1
J3----------B2
J4----------B4
W101---------D2
W102---------B4
W103---------D3
W104---------B2

TR601,602------2SK223(F,G)
TR603,604------2SD1302(S,T)
TR605 to 610----2SJ103(GR)
TR611---------2SA1015(GR)
TR612 to 618---2SC1815(BL)
TR619,620------2SD1302(S,T)
TR623 to 626---2SC1815(BL)
TR627,628------2SD1302(S,T)

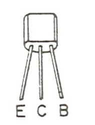
TR629,630----2SC1959(Y)
TR631--------2SA562(Y)
TR632--------2SC1815(BL)
TR633,634,636--2SA1015(GR)
TR635,637,638--2SC1815(BL)
TR639,642----2SA1015(GR)
TR640,643----2SC1815(BL)

B
◉●● = PNP TRANSISTOR

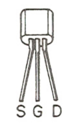
B
●●● = NPN TRANSISTOR

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

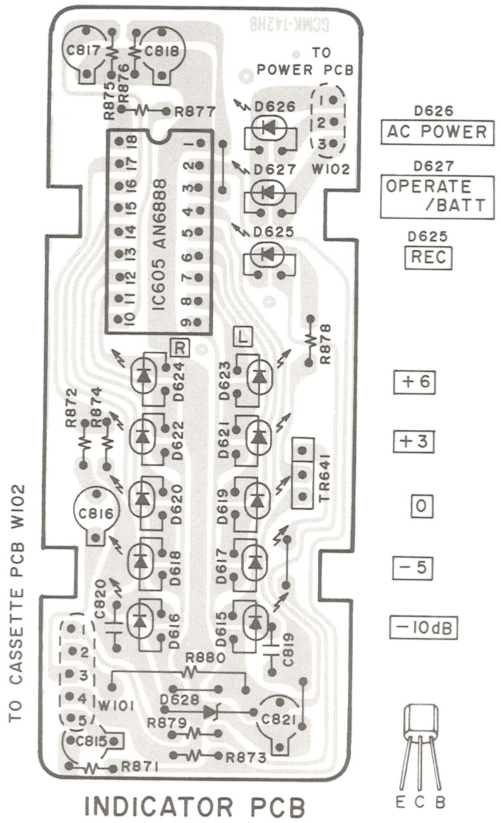
AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT



2SA562
2SA1015
2SC1815
2SC1959
2SD1302



2SJ103
2SK223

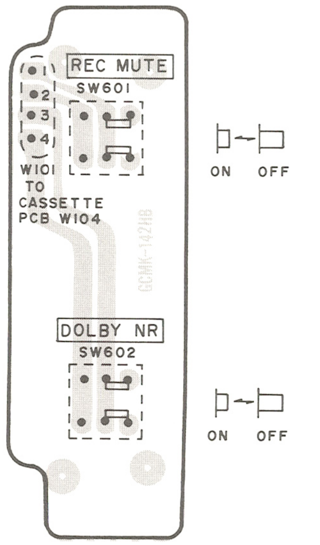

C817
C818
R875
R876
R877
TO POWER PCB
D626
1 2 3
W102
D627
D625
IC605 AN6888
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
R
L
R878
R872
R874
D624
D622
D620
D618
D616
D623
D621
D619
D617
D615
TR641
C816
C820
C819
R880
D628
C821
R879
W101
C815
R871
R873
TO CASSETTE PCB W102
GCMK-142HB
D626
AC POWER
D627
OPERATE /BATT
D625
REC
+6
+3
0
-5
-10dB
E C B

INDICATOR PCB
2219391800

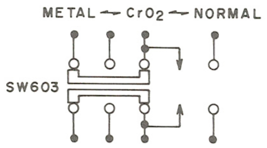
2SC1815

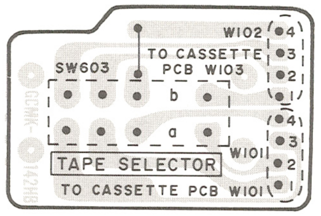
TR641----2SC1815(BL)

B
●●● = NPN TRNSISTOR


1
2
3
4
W101
TO CASSETTE PCB W104
REC MUTE
SW601
ON OFF
DOLBY NR
SW602
ON OFF
GCMK-142HB

SW(A) PCB
2219391500


METAL
CrO2
NORMAL
SW603


W102
4
3
2
1
SW603
TO CASSETTE PCB W103
b
a
W101
TAPE SELECTOR
TO CASSETTE PCB W101
GCMK-142HB

SW(B) PCB
2219391600